STIC-Biotech/ChemLib



68491

Fr m: Sent: To: Subject: Li, Ruixiang Monday, June 10, 2002 4:28 PM STIC-Biotech/ChemLib Sequence search of Application NO: 09/733,387

Please do a standard search on SEQ ID NOs: 43 and 44 against both the commercial and interference nucleic acid database.

Thank you very much!

Ruixiang Li GAU 1646 CM1 10E18 Mail Box 10C01 306-0282

> Edward Hart Technical Info. Specialist STIC/Biotech CMI 6B02 Tel: 305-9203

> > JUN II 2002

	TYPE OF SEARCH;	VENDOR/COST(where applic.)
Searcher:	NA Sequences:/	STN:
Phone:	AA Sequences:/	DIALOG:
Location:	Structures:	Questel/Orbit:
Date Picked Up: 9/11/97	Bibliographic:	DRLink:
Date Completed: ////////////////////////////////////	Litigation:	Lexis/Nexis:
Searcher Prep/Review:	Full text:	Sequence Sys.:
Clerical:	Patent Family:	WWW/Internet:
Online time:	Other:	Other (specify):

•

```
145.8
143.6
140.2
140.2
130.4
130.4
110.4
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
111.5
  υ
                                                                                                                                                         (without alignments)
13165.893 Million cell updates/sec
                                                                                                                                                                                                                                                       1 atggcgacgcccaggggcct......actccgcatctcaagaatag 1650
                                                                                                                                 June 11, 2002, 20:11:27 ; Search time 1691.49 Seconds
                                                                                                                                                                                                                                                                                                                                                                                          27472414
                    GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                    13736207 seqs, 6748477542 residues
                                                                                                                                                                                                                                                                                                                                                                                          hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                              - nucleic search, using sw model
                                                                                                                                                                                                                                                                                          IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                             US-09-733-387-43
1650
                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EST: *
                                                                                                                                                                                                                                                                                                                                                                                          Total number of
                                                                                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                OM nucleic
                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                     Run on:
                                                                                                                                                                                                                 Title:
```

BM450054 AGENCOURT BF164505 601772653 AQ171270 HS_3073_B B1257601 602967173 AQ607309 HS_5327_B BG60953 BB860353 BG60953 BB860353 BF345756 602017816 BC818779 602717816 BC818779 602717910 BC818779 602177916 BC860092 BB860092 BF754100 207424 MA BC5410 603304709 BC67414 603304709 BC70352 Wf37609.x B1091050 603309821 BC70352 Wf37609.x B1091050 603309821 BC703541 6022084110 BC904206 0252-80 M BC770361 602738110 BC904136 602111316 BF784683 602011316 BF784683 602011316 BF784683 602011336 BF784683 602011259 BC8944136 602011259 BC904136 BC906251

BM450054 BF164505 AQ171257601 B1257607309 BG760951 BF345756 BF1066761 BB860092 BE74100 B1661416 AW59268 A1807052 BF191050 B16911842

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

gb_gss:*
em_gss_hum:*
em_gss_inv:*
em_gss_pln:*

gb_est1:*
gb_est2:*
gb_htc:*

1: em_estba:*
2: em_esthum:*
3: em_esthum:*
5: em_estov:*
6: em_estpl:*
7: em_estpl:*
8: em_htc:*

em_gss_vrt:*

ES		Description	BF183209 601809910	BM193875 TCAAP1E43	BG975242 602843148	BF788639 602105522	BM145287 TCAAP1D46	BM145497 TCAAP1D64	BE281756 601099701	BI646880 603278628	AA981381 vx56d06.r	BE241639 TCAAP1E06	U14114 MMU14114 ca	AK014445 Mus muscu	BE831720 RC0-MT005	BI660803 603303847	BM484584 538496 MA	BM146119 TCAAP1E14	PC013207 Homo gani
SUMMARIES		ΙD	BF183209	BM193875	BG975242	BF788639	BM145287	BM145497	BE281756	BI646880	AA981381	BE241639	U14114	AK014445	BE831720	BI660803	BM484584	BM146119	BC013207
		DB	10	10	10	10	10	10	10	10	6	10	10	11	10	10	10	10	11
		Query Match Length DB	779	526	736	930	436	376	585	800	518	338	391	1087	432	856	329	248	3835
	dР	Query Match	37.2	26.9	26.6	24.2	23.9	21.3	20.5	19.0	18.7	15.7	13.9	13.1	12.6	11.6	10.2	10.1	9.5
		Score	613.4	443.4	439.4	399	394.2	351.2	338	314	309.2	259.8	229.6	216.4	207.8	191.6	168.4	166.6	151.8
		Result No.	-	7	e	4	c 2	9 0	7	8	6	10	c 11	12	c 13	14	15	16	17

EF183209 779 bp mRNA linear EST 31-OCT-2000 601809910F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040402 5', mRNA sequence. BF183209 BF183209.1 GI:11061396 EST	Homo sapiens Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases: 1 to 779) NIH-MGC http://mgc.nci.nih.gov/. National Institutes of Health, Mammalian Gene Collection (MGC)	Onpublished (1939) Email: cgapbs-rémail.nih.gov Tissue Procurement: DCTP/DTP/Gazdar Tissue Procurement: DCTP/DTP/Gazdar CDNA Library Preparation: Ling Hong/Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.lln.gov Plate: LLCMSSS row; d column: 03 High quality sequence stop: 701.	
RESULT 1 BF183209 LOCUS DEFINITION ACCESSION VERSION KENWORDS SOURCE	ORGANISM REFERENCE AUTHORS TITLE	COMMENT	FEATURES

ALIGNMENTS

BG770361 BG032841 BG004188 B1755503 BG914136 BF783449

BF784683 BF584015 BF346638

Wed

```
Matches 447;
                                                                                                                                                                                                                                                                                                                                                                                          Query Match
   REFERENCE
AUTHORS
                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                  FEATURES
                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EST 13-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM193875 526 bp mRNA linear EST 13-DEC-20
TCAAP1E4365 Pediatric pre-B cell acute lymphoblastic leukemia
Baylor-HGSC project-TCBA Homo sapiens cDNA clone TCAAP4365, mRNA
                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                               acagetacggcetetacaccatecgtgatagggagaaccgcacetetetggagetatget 1261
                                                                                              781
                                                                                                                                        841
                                                                                                                                                                                    181
                                                                                                                                                                                                     901
                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                           420
                                                                               Gaps
Berkeley) using ZAP-cDNA synthesis kit (Stratagene)
Superscript II RT (Life Technologies). Note: this is
NHL MGC Library."
1 229 c 218 g 196 t
                                                                                                                                                               ggaccgtgtgctgtgaccacctgaccttttcgccctgctcctgagacccaccttgg
                                                                                                                                                                                                 tggccttcttggtcaatgtggggagtggctcaaagggggtctgatgctgcctgggggccc
                                                                                                                                                                                                                                                                                                        ggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct
                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                             DB 10; Length 779;
                                                                              Indels
                                                            Score 613.4; DB 10
Pred. No. 2.4e-127;
0; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BM193875.1 GI:17652472
                                                           ch 37.2%;
il Similarity 97.5%;
676; Conservative
                                                                   Best Local Similarity
Matches 676; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sedneuce.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human.
                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
BM193875
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VERSION
KEYWORDS
SOURCE
ORGANISM
                        BASE COUNT
                                                                                                             ~
                                                                                                                                                                                                                                                                     962
                                                                                                                                                                                                                                                                                                                                          1082
                                                                                             662
                                                                                                                               722
                                                                                                                                               62
                                                                                                                                                                                                                                                                                                        1022
                                                                                                                                                                                                                                                                                                                                                                             1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                            ద
                                                                                                                              ð
                                                                                                                                             g
                                                                                                                                                              ò
                                                                                                                                                                              qq
                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
```

ò

ò

ô Ω ò g ò ò g ö q ò g

```
/tissue_type="leukopheresis"
/dev_stage="pediatric 2 years"
/dev_stage="pediatric 2 years"
/dev_stage="pediatric 2 years"
/lab_host="pediatric 2 years"
/lab_host="bediatric 2 years"
/lab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                          Center
Wei, Y. Tsang, Y. T. M., Mei, G., Ku, J.M., Ali-Osman, F.R. Jr., Gunaratne, P.H., Muzny, D., Bouck, J., Gibbs, R.A. and Margolin, J.F. Gunaratne, P.H., Muzny, D., Bouck, J., Gibbs, R.A. and Margolin, J.F. Dediatric Leukemia CDNA Sequencing Project (2001)
Unpublished (2001)
Contact: Dr. Judith F. Margolin
Texas Children's Cancer Center and Human Genome Sequencing Cente at Baylor College of Medicine
1102 Bates, MC3-3320 Houston, TX 77030, USA
Tel: 832-824-4536
Fax: 832-825-4038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1. ...526.
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="TCAR4365"
/clone="TCAR4365"
/clone="TCAR4365"
/clone="TCAR4365"
/clone="TCAR4365"
/clone="TCAR4365"
/clone="TCAR4365"
/sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               caggaaaagcccaccgaagggccaagaaacacctgcctgggggagcaacaacatgtacgac 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 atgaaggacgaggacaagccccctgacagagtgcgacttcccaagagcctttttcgatcc 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 atggcgacgcccaggggcctgggggccctgctcctgctcctgctcccgacctcaggt 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            accaacactgcagaagacttctatttctctctggagccctctcaggttccgaggcaggtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCAACACTGCAGAAGACTTCTATTTCTCTGGAGCCCTCTCAGGTTCCGAGGCAGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 443.4; DB 10;
Pred. No. 3.1e-89;
0; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .. 9
                                                                                                                                                                                                                                                                                                                                                                                                           Email: clones@txccc.org
Seq primer: M13 primer.
Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      26.9%;
98.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              125
```

```
house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
TITLE
                                                                                                                                                                              1168
                                                                                                                                                                                                                                             1228
                                                                                                                                                                                                                                                                                                         1288
                                                                                                                                                                                                                                                                                                                                                                                                                                    1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
BF788639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                         δy
                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                 QQ
                                                                                                                 Qγ
                                                                                                                                           QQ
                                                                                                                                                                         δ
                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                    g
                                              Ωy
                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note="Organ: mammary; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT. Average insert 2.5 kb. Library constructed by Life Technologies, catalog # 12018-016. Investigators providing samples: Lothar Hennighausen/Priscilla Furth, NIH Reference for transgenic model: Li et al., Cell Growth and Differentiation 7, 3-11 (1996). Note: this is a NCI_CGAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                               BG975242 173-JUN-2001 736 bp mRNA linear EST 12-JUN-2001 602843148F1 NIH_CGAP_Mam4 Mus musculus CDNA clone IMAGE:4979170 5',
                                                                                                                                                                                                                                                                                Mus musculus
Sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 736)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         988 ggctcaaaggggtctgatgctgctggtgggcccgggggggttgttccactacttcctg 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          927
                                                                                                                                                                                                                                                                                                                                         NIH-WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Priscilla Furth
Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                        492
                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can t
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM10976 row. column: 11
High quality sequence stop: 736.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                868 tatgcctttctgaggctttcccgggagagggttcaagtcagaagatgccccaaagatccac
      Ouery Match

26.6%; Score 439.4; DB 10; Length 736;
Best Local Similarity 76.4%; Pred. No. 2.8e-88;
Matches 569; Conservative 0; Mismatches 166; Indels 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:10090"
/clone="IMAGE:4979170"
/clone=lb="nHaGE:4979170"
/tissue_type="tumor, gross tissue"
/lab_host="DH10B"
                                                     /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180 g
                                                                                                                                                                                                    mRNA sequence.
BG975242
BG975242.1 GI:14362879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Library."
227 c
                                                                                                                                                                                                                                                                   house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                      LOCUS
                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                       BG975242
                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                      g
                             셤
                                                           à
```

```
Bukaryota; Metacoa; Chordata; Craniata; Vertebrata; Buteleostomi; Bukaryota; Metacoa; Chordata; Craniata; Vertebrata; Buteleostomi; Bukaryota; Metacoa; Rodentia; Sciurognathi; Muridae; Musinae; Losses 1 to 930)

NIH-MGC http://mgc.nci.nih.gov/.

NIH-MGC http://mgc.nci.nih.gov/.

NIH-MGC http://mgc.nci.nih.gov/.

Lontact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Tissue Procurement: Jeffrey E. Green, M.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC Clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Righ quality sequence stop: 673.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             930 bp mRNA linear EST 12-JAN-2001 602105522F2 NCI_CGAP_Kid14 Mus musculus cDNA clone IMAGE:4223741 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1468 tgggggttggccatcttcacccgttgggcctctccaccgtctacatctttgcactttc 1527
                                                                                                                                                                                                                                                                    gataggggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtac 1287
                                                                                                                                                                                                                                                                                                                                                         geocitratateacegiceaeggetacticeteateaceticetettiggeatggiggie 1347
                                                                                     1108 gicticaacacciacticgggcactacticcigaagcigagcciggigggiggggccig 1167
                                                                                                                                                                            ccegecetgatggteateggeactgggagtgecaacagetacggeetetacaccatecgt 1227
                                                                                                                                                                                                      /organism="Mus musculus"
/strain="FVB/N"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="IMAGE:4223741"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1528 aa ctccttgcaaggtgtcttcatc 1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      712 AACCTCTCTACAAGGGCTCTTCATC 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BF788639.1 GI:12093675
```

ŏ g QQ

ò

ò

g

g ò g

δ

g

ò

g

ŏ g õ

õ

g

۵

à a à a g

ò

g

ò

ò

```
/Lissue_type="leukopheresis"
//Lissue_type="myeloid_cell"
//dev_stage="myeloid_cell"
//dev_stage="pediatric 6 years"
//lab_host="myeloid_cell"
//lab_host="myeloid_cell"
//lab_host="myeloid_cell"
//lab_host="myeloid_cell"
//lab_host="myeloid_cell"
//lab_host="myeloid_stage_rell"
//lab_host="myeloid_rell"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1. 436
Coganism="Homo sapiens"
Ab_xref="taxon:9606"
/clone="TCAAP4626"
M1) Baylor-HGSC project=TCAA"
//sex="male"
  BM145287

436 bp mRNA linear EST 30-NOV-2001
TCAAPID4626 Pediatric acute myelogenous leukemia cell (FAB M1)
Baylor-HGSC project-TCAA Homo sapiens cDNA clone TCAAP4626, mRNA
                                                                                                                                                                                                Homo sapiens
BUKATYCHE, Metazoa; Chordata; Craniata; Vertebrata; Euteleostoml;
Mammalla; Eutheria; Primates; Catarrhin; Hominidae; Homo.
1 (bases 1 to 436)
Web, Y., Tsangy, Y.T.M., Mei, G., Ku, J.M., Ali-Osman, F.R. Jr.,
Gunaratne, P.H., Muzny, D., Bouck, J., Gibbs, R.A. and Margolin, J.F.
Pediatric Leukemia CDNA Sequencing Project (2001)
Unpublished (2001)
Contact: Dr. Judith F. Margolin
Texas Children's Cancer Center and Human Genome Sequencing Center
Texas Children's Cancer Center and Human Genome Sequencing Center
TH BAYLOR COllege of Medicine
1102 Bates, MG3-3320 Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1014 ctgggcccggggggtgtcttccactacttcctgctctqtgccttcacctggatgggcct 1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cttcctgaagctgagcctggtgggctgggcctgcccgcctgatggtcatcggcactgg 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gagtgccaacagctacggcctctacaccatccgtgatagggagaaccgcacctctctgga 1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 23.9%; Score 394.2; DB 10; Length 436; Best Local Similarity 96.5%; Pred. No. 3.2e-78; Matches 414; Conservative 0; Mismatches 13; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ter: 832-825-4038
Email: clones@txccc.org
Seq primer: Ml3 primer.
Location/Qualifiers
                                                                            sequence.
BM145287
BM145287.1 GI:17163166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98
                                                                                                                                                   EST.
human.
                                                                                                 ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1134
                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Óλ
                                                                                                                                                                                                                                                                                                       3;
                                                    Noti;
go dT.
/clone_lib="NCI_CGAP_Kid14"
//lab_host="NCI_CGAP_Kid14"
//lab_host="Diggram in the page_resistant)"
//note="Organ: Kidney: Vector: pCMV-SPORT6; Site_1: Not Site_2: Sal1; Cloned unidirectionally. Primer: Oligo AVerage insert size 1.75 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library. |"
1 268 253 g 224 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236 tgaaggaaggtttgacgcagaaggtgaacacgcctttcctgaaggctttggtccagaacc 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                      tcagcaccaacactgcagaagacttctatttctctctggagccctctcaggttccgaggc 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                atgigaciaaagggaccaciggagaciggicticigagggcigciccacggaggicagac 715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12 TGCTGGAGAATTCCATGGAGACTGTGGACATGCCTTTTGTTAAGGCATTGATCAGAACA 71
                                                                                                                                                                                                                                                                                                    12; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cagggactcttcaagggcccccggctcggcctgggagatggcagcggcgtgttgaaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ccatgatcttcctggccttca-ccattattctttatgcctttctgaggctttcccgggag
                                                                                                                                                                                                                                                     Length 930;
                                                                                                                                                                                                                                                  Score 399; DB 10; Length 9
Pred. No. 3.5e-79;
0; Mismatches 205; Indels
                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                             Sest Local Similarity 72.2%;
Matches 564; Conservative (
                                                                                                                                                   ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1015 t 1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
BM145287/C
                                                                                                                                              BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             955
                                                                                                                                                                                                                                                                                                                                                                                                                                                   396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
```

1;

249 GAGTGCCAACAGCTACGGCCTCTACACCATCCGTGATAGGGAGAACCGCACCTCTCTGGA 190

```
house mouse.
                                                 Best_Local Similarity
Matches 356; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1437 gctg 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4 GCTG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST
                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                 1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1317
                                                                                                                                                                                                                                                              1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BE281756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏλ
                                                                                                                                                                                                                                                                                                                      P
                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15' AGAGAGCT CGCGCCCCCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCATAINCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     E (bases 1 to 376)

S Wei,Y., Tsang,Y.T.M., Mei,G., Ku,J.M., All-Coman,F.R. Jr.,

Gunarane,P.H., Muzny,D., Bouck,J., Gibbs,R.A. and Margolin,J.F.

Pediatric Leukemia cDNA Sequencing Project (2001)

Unpublished (2001)

Contact: Dr. Judith F. Margolin

Texas Children's Cancer Center and Human Genome Sequencing Center at Baylor College of Medicine

1102 Bates, Mc3-3320 Houston, TX 77030, USA

Tel: 832-824-4536

Fax: 832-825-4038

Email: clones@txccc.org

Seq primer: Ml3 primer:

Location/Qualifiers

Irce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="Pediatric acute myelogenous leukemia cell (FAB
M1) Baylor-HGSC project=TCAA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BM145497 376 bp mRNA linear EST 30-NOV-2001 TCAAPID6491 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP6491, mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /noce="Vector: lambda pSB; Site_1: BamHI; Site_2: EcoRI; First strand cDNA was primed with an anchored xholoigo(dT) primer [5'GGAGGACTGGAGGGGCGCGCAGGAGGAG(T)VN 3'; V=A,C,G; N=A,C,G,T] and then dG tailed. Second strand was primed with a BamHI-dC primer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Euther<u>ia;</u> Primates; Catarrhini; Hominidae; Homo.
                                                                                                                  1314 cttcctcatcaccttcctctttggcatggtggtcctggccct--ggtggtctggaagatc 1371
                                                                                                                                                                                                                                     1372 ttcaccctgtcccgtgctacagcggtcaaggagcgggggaagaaccggaagaaggtgctc 1431
/tissue_type="leukopheresis"
/cell_type="myeloid cell"
/dev_stage="pediatric 6 years"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:9606"
/clone="TCAAP6491"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BM145497
BM145497.1 GI:17163567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /sex="male"
                                                                                                                                                                                                                                                                                                                                                           1432 accetgetg 1440
                                                                                                                                                                                                                                                                                                                                                                                             ACCCIGCIG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sednence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
BM145497/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
JOURNAL
COMMENT
      1254
                                                                                                                                                                             129
                                                                                                                                                                                                                                                                                                                                                                                                                   σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                              δ
      δλ
                                                    qq
                                                                                                                  ò
                                                                                                                                                                                                                                     ò
```

```
BE281756 585 bp mRNA linear EST 26-OCT-2000 601099701F1 NCI_CGAP_Lu29 Mus musculus CDNA clone IMAGE:3492001 5',
                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus subtractos, Chordata; Craniata; Vertebrata; Euteleostomi; Buraryota; Metazoa; Chordata; Craniata; Vertebrata; Eutheria: Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 585)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone="IMAGE: 3492001"
/clone_lib="NCI_CGAP_Lu29"
/tissue_type="Spontaneous tumor, metastatic to mammary.
/tissue_type="Spontaneous tumor, metastatic to mammary.
/lab_host="DH108"
                                                                                                                                                                                                                                                                           cctgaagctgagcctggtgggctgggcctgcccgcctgatggtcatcggcactgggag 1196
                                                                                                                                                                                                                                                                                                                                                                      1257 atgotggttccgtgaagggacaaccatgtacgccttctatatcaccgtccacggctactt 1316
                                                                                          1077 agcettecacetetacetgetegetgteagggtetteaacacetacttegggeactaett 1136
                                                                                                                                                                                                                DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                              0
Length 376;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: LLAM8537 row: b column: 02
High quality sequence stop: 581.
Location/Qualifiers
                                              Indels
  Score 351.2; DB 10;
Pred. No. 1.3e-68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Mus musculus"
/strain="CZECH II (feral)"
/db_xref="taxon:10090"
                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BE281756.1 GI:9156853
  21.3%;
97.8%;
                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mRNA sequence.
BE281756
```

```
source
                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1609
                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        οχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 òγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EST 12-SEP-2001
IMAGE:5318839 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 800)
             đ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Deng Ph.D.
cDNA Library Preparation: Life Technologies, Inc.
/note="Organ: lung; Vector: pCMV-SPORT6; Site_1: Sall; Site_2: NotI; Cloned unidirectionally. Primer: Oligo d Library constructed by Life Technologies. Investigator providing samples: Gilbert Smith, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               951 cctcctgaatctggccttcttggtcaatgtggggagtggctcaaaggggtctgatgctgc 1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cettgaagcettecacetetacetgetegetgteagggtetteaacacetacttegggea 1130
                                                                                                                                                       totggagatcgtcttctctcaccagcgaccgcccctaacatgaccctcacctgtgtatt 650
                                                                                                                                                                                                        ctgggatgtgactaaagggaccactggagactgtcttctgagggctgctccacggaggt 710
                                                                                                                                                                                                                       771 acccacettggaccagtecacggtgcatatectcacacgcateteccaggcgggctgtgg 830
                                                                                                                                                                                                                                                                                                                                     231
                                                                                                                                                                                                                                                                                                                                                            831 ggtctccatgatcttcctggccttcaccattattctttatgcctttctgaggctttcccg 890
                                                                                                                                                                                                                                                                                                                                                                          232 CGTCTCCATGATCTTCCTGGCCTTCACCATGGTGCTCTATGTTGCCTTCAGGTTCTCTCT 291
                                                                                                                                                                                                                                                                                                                                                                                                             352 TCTCCTGAATCTTACCTTCCTGATCAATGTGGGGAGCAGCTCCCAAGGCCCCCTAGCCTC 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                      CTGCTGGGTCCGAGCTGCCATTTTCCACTACTTTCTGCTCTGTGTCTTCACCTGGATGGG
                                                                                                      Length 585;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          bp mRNA linear
musculus cDNA clone
                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cta-cttcctgaagctgagcctggtgggctggggcctgcccgcct 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches 130;
                                                                                                   Score 338; DB 10;
Pred. No. 1.5e-65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          800 b
603278628F1 NIH_CGAP_Mam3 Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BI646880.1 GI:15561116
                                                                                                   Query Match
20.5%;
Best Local Similarity 76.1%;
Matches 446; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA sequence.
BI646880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
BI646880
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
JOURNAL
COMMENT
                                                   COUNT
                                                                                                                                                       591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1131
                                                                                                                                                                                                        651
                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
KEYWORDS
                                                  BASE CC
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                       ŏ
                                                                                                                                                                           g
                                                                                                                                                                                                        ä
                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
/organism="Mus musculus"
/db.xref="taxon:10090"
/clone_"IMAGE:5318839"
/clone_"IMAGE:5318839"
/clone_"IMAGE:5318839"
/clone_"IMAGE:5318839"
/clone_"IMAGE:5318839"
/closue_type="tumor, gross tissue"
/lab_host="bullob"
/note="organ: mammary; Vector: pCMV-SPORT6; Site_1: NotI;
/note=: long in this is a NotI_CGAP Library."
/note: this is a NoT_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tgctgctggttcaccatcctttacctcccaagtcagagcaccacagtctcctcctc---t 1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1132 tacttoctgaagotgagoctggtgggtggggcctgcccgccctgatggtcatcggcact 1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gggagtgccaacagctacggcctctacaccatccgtgatagggagaaccgcacctctctg 1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gagetatgetggtteegtgaagggacaaceatgtaegeeetetatateeegteeaegge 1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tactteeteateacetteetetttggeatggtggtegtggeettggtggtetggaagate 1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tteaccetgtecegtgetacageggteaaggagegggggaagaaeeggaaggaggtgete 1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   accetgetgggcetetegageetggtggtgtgaeatgggggttggeeatetteaeeeg 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1072 cttgaagcettecacetetacetgetegetgteagggtetteaacacetacttegggeac 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            410 CTCGGCTTGTCTACCATCTACGTCTTCACCCTCTTAAACTCTTACAAGGGCTCTTCATC 469
                                                               þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  230 TACTICCTIGITACCTICCTCTICGGIGCTGGGTACTGGCTTIGGTGGCCTGGAAGAIC 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAMI1808 row: h column: 08
High quality sequence stop: 799.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 290 TTCACTCTGCCCAGTGTCACAGCGGGCAAAGGACAGGGGGCCGACCTGGAAGTCGGTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 800;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   actgcaagattggaccaggcccactccgcatctcaagaatag 1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 314; DB 10;
Pred. No. 4.1e-60;
0; Mismatches 125;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tch 19.0%;
al Similarity 76.1%;
443; Conservative
                                                                                                                                                                                                                                   .800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
```

RESULT AA981381

```
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                   1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                               472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BE241639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                    δλ
                                                       g
                                                                                                               QΥ
                                                                                                                                                                                                                                                                QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Mus musculus"
/db_xref="taxon:10090"
/clone="IwAGE:1279211"
/clone="IwAGE:1279211"
/clone="IwAGE:1279211"
/clone=Lib="IwAGE:1279211"
/closue_type="macrophage"
/dev_stage="WBHI-3" cell line"
/lab_host="SOLE (kanamycin resistant)"
/note="Grgan: blood; Vector: pBluescript SK-; Site_1:
/note="Grant-Image: Bluescript SK-; Site_1:
/note="Grant-Image: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ĥ
AA981381 518 bp mRNA linear EST 27-MAY-1998 vx56006.rl Stratagene mouse macrophage (#937306) Mus musculus cDNA clone IMAGE:1279211 5' similar to TR:000406 000406 SEVEN TRANSMEMBRANE-DOMAIN RECEPTOR: ', mRNA sequence.
                                                                                                                                                                                                                                                                                                Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (Dases 1 to 518)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisells.T., Lacy,M., Le,M., Martin,J., Morris,M.,
Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moorte,B.,
Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This clone is available royalty-free through LLNL ; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1050 ctgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggt 1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              egecetgatggteateggeactgggagtgeeaacagetacggeetetacaceatecgtga 1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1230 tagggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacgc 1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 TGTTCTTGTAGTTATTGGTGCTGGAAGTAGCAACATTATGGAGTTTACACCATTCGCGA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  232 TCTTTATGCTACTGCCACGGCTACTTCCTTGTTACCTTCCTCTTCGGTGCTGTGGTACT 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CTGTGTCTTCACCTGGATGGGTCTGGAGGCCTTCCACCTCTACCTGCTGGCCATCAGAGT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The WashU-HHMI Mouse EST Project
Unpublished (1996)
Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 309.2; DB 9; Length 518;
Pred. No. 4.1e-59;
0; Mismatches 118; Indels 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seq primer: -28ml3 rev1 ET from Amersham
High quality sequence stop: 439.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: mouseest@watson.wustl.edu
                                                                                                                                       AA981381.
AA981381.1 GI:3159917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 18.7%;
Best Local Similarity 75.9%;
Matches 399; Conservative C
                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                        house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  85
                                  DEFINITION
                                                                                                                                                                                                                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1110
                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1170
                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
```

```
/note="Vector: lambda pSB; Site_1: BamHI; Site_2: ECORI;
First strand cDNA was primed with an anchored
XhoI-oligo(dT) primer [5'GGAGGACGGCGCGCGGAGGGGGT[T)VN
3' 'V=A.C.G: N=A.C.G.T] and then dG tailed. Second strand
was primed with a BamHI-dC primer
[5'AGAGACCTCGGATCCGCACCATAATPATAATC]
Double-stranded cDNA was then digested with BamH1 and XhoI
and directionally cloned into the BamH1 and SalI sites of
lambda pSB vector. Library went through one round of
normalization. Library was constructed by Wel Yu at RIKEN
of Japan (Carninci P. Westover A. Nishiyama Y. Ohsumi T,
Itoh M. Nagaoka S, Sasakin, Okazaki Y, Muramatsu M,
Schneider C, Hayashizaki Y, High efficiency selection of
full-length cDNA by improved biotinylated cap trapper.,
DNA Res 4: 1, 61-6, Feb 28, 1997)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="Pediatric acute myelogenous leukemia cell (FAB
M1) Baylor-HGSC project=TCAA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bukaryotta; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases I to 338)
Wei,Y., Tsang,Y.T.M., Mei,G., Ku,J.M., Ali-Osman Jr.,F.R., Muzny,D., Bouck,J., Gibbs,R.A. and Margolin,J.F.
Pediatric Leukemia cDNA Sequencing Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unpublished (2000)
Contact: Dr. Judith F. Margolin
Cortact: Dr. Judith F. Margolin
Texas Children's Cancer Center and Human Genome Sequencing Center
at Baylor College of Medicine
1102 Bates, MC3-3320 Houston, TX 77030, USA
Tel: 832-824-4536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BE241639 338 bp mRNA linear EST 03-OCT-20 TCAAP1E0686 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP0686, mRNA
                                                                                                                      1470 ggggttggccatcttcaccccgttgggcctctccaccgtctacatctttgcacttttcaa 1529
                                                                                                                                                                                                                                                                                   412 GGGCTGCTGTTCTCACCCCCTCGCTTGTCTACCATCTACGTCTTCACCTCTTAAA 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: clones@txcc.org
Citation: Carninci,P. and Hayashizaki,Y. High efficiency
full-length cDNa cloning. Methods Enzymol. 303, 19-44 (1999)
Seq primer: M13 primer.
                                                                                                                                                                                                                                                                                                                                                                          1530 etecttgeaaggtgtetteatetgetgetggtteaecateetttae 1575
                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="leukopheresis"
/cell_type="myeloid cell"
/dev_stage="pediatric 6 years"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="TCAAP0686"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE241639.1 GI:9093362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /sex="male"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fax: 832-825-4038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sednence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST
```

```
seguence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10349636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11042159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20499374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11076861
                                                                                                                                                                                                                                                                                  AK014445
LOCUS
DEFINITION
                                                                                                                                                                                                               1332
                                                                        1152
                                                                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                      40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
    q
                                                 g
                           óλ
                                                                        ò
                                                                                             qq
                                                                                                                     ò
                                                                                                                                           g
                                                                                                                                                                 δy
                                                                                                                                                                                        g
                                                                                                                                                                                                                ŏ
                                                            1;
                                                                                                                                                                                                                                                                                                                                               U14114 MMU14114 caffeine-1-8 cDNA RDA third difference product Musmusculus cDNA clone p8C12, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 391)
Hubank, M.J.F. and Schatz, D.G.
Identifying differences in mRNA expression by representational
difference analysis of cDNA
NUCLEIC_Acids Res: 22, 5640-5648 (1994)
                                                                            179
                                                                                                                                                                                                   243
                                                                                                                                                                                                                    ctcctgcaatgtggaaaacttgcagagatactggctaaactacgaggcccatctgatgaa 239
                                                                                                                                                                                                                               .1032 ottcoactacttcctgctctgtgccttcacctggatgggccttgaagccttccacctcta 1091
                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     = 204 - 1 - 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Howard Hughes Medical Institute
Yale University, 310 Cedar St, New Haven, CT 06520-8011, USA.
1. 391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /db_xref="taxon:10090"
/clone="p8C12"
/clone_lib="caffeine-1-8 cDNA RDA third difference
                                                                                                                                                                        391 GATCAATGTGGGGAGCAGCTCCCAAGGCCCCCCAGCTCCTGCTGGTCCGAGCTGCCAT
                                                           1;
                                  Score 259.8; DB 10; Length 338; Pred. No. 4.3e-48; 0; Mismatches 2; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               //note="Tissue_type = lymphocyte; cell_line
cell_type = pre-B cell"
101 c 112 g 66 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 229.6; DB 10; Length
Pred. No. 2.7e-41;
0; Mismatches 89; Indels
                                                                                                                                                                                                                                                               Hubank, M.J.F. and Schatz, D.G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Mus musculus"
                                15.7%;
98.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13.9%;
75.5%;
                                                                                                                                                                                                                                                                                                                                                                                              U14114.1 GI:537633
                               Query Match 15.7
Best Local Similarity 98.9
Matches 272; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 75.5 Matches 302; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunobiology
                                                                                                                                                                                                                                                                                                                                                                                                                     house mouse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95140627
Contact: F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                       120
                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                         RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                             VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
                                                                                                                                                                                                                                                                                                                                   U14114/C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
ORIGIN
                                                                                                                         ò
                                                                                                                                              ρp
                                                                                                                                                                       ò
                                                                                                                                                                                         9
                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
```

```
Mus musculus 18 days pregnant adult female placenta and extra embryonic tissue cDNA, RIKEN full-length enriched library, clone:3830420G05:G protein-coupled receptor 97, full insert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 (sites)
Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K.,
Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new genes
Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shibata, K., Itoh, M., Aizawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Shibata, K., Itoh, M., Aizawa, K., Kitsunai, T., Tashiro, H., Itoh, M., Sumi, N., Ishii, Y., Nakamura, S., Hazama, M., Nishine, T., Harada, A., Yamamoto, R., Matsumoto, H., Sakaguchi, S., Ikegani, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Izawa, M., Ohara, E., Watahiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostoml;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HTC; CAP trapper.

Was musculus (strain:C57BL/6J) 18 days pregnant adult female placenta and extra embryonic tissue cDNA to mRNA, clone_lib:RIKEN full-length enriched mouse cDNA library clone:3830420605.
                                                                                                                                                                                            1211
                                                    1212 cctctacaccatccgtgatagggagaaccgcacctctctggagctatgctggttccgtga 1271
                                                                                                                                                                                                                                                          152
                                                                                                                                                                                                                                                                                                                                                                                                                                       1272 agggacaaccatgtacgcctctatatcaccgtccacggctacttcctcatcaccttcct 1331
331 TITCCACTACTITCTGCTCTGTGTCTTCACCCGGATGGGTCTGGAGGCCTTCCACCTCTA 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Adachi,J., Aizawa,K., Akahira,S., Akimura,T., Aono,H., Arai,A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91 AGAGCC-----TGCTCTTTATGCTACTGTCCACGGCTACTTCCTTGTTACCTTCCT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 (sites) The RIKEN Genome Exploration Research Group Phase II Team and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FANTOM Consortium.
Functional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001)
Chases 1 to 1087)
                                                                                                                                                                                   ctttggcatggtggtcctggccctggtggtctggaagatc 1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (sites)
Carninci,P. and Hayashizaki,Y.
High-efficiency full-length cDNA cloning
Meth. Enzymol. 303, 19-44 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AK014445
AK014445.1 GI:12852300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
```

```
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Vokohama Institute, 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Ranagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9212,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="placenta and extra embryonic tissue"
/clone_lib="RIKEN full-length enriched mouse cDNA library"
/dev_stage="18 days pregnant adult"
744. 1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=1
/protein_id="BAB29355.1"
/protein_id="BAB29355.1"
/protein_id="BAB2301"
//Lanslation="MOPKSYRCRSAGIKSPCKPWSPSQQCYLYPCCYGDRSLELSSCG-PPLIHQBRTRTEACSIYIWPRGKREKKQLFPRRLYSYGTALPTISTQPEHQAWLCQAN
Arakawa,T., Baldarelli,R., Bono,H., Brownstein,M., Bult,C.,
Carninci,P., Fukuda,S., Fukunishi,Y., Furuno,M., Hanagaki,T.,
Hara,A., Hayatsu,N., Hill,D., Hiramoto,K., Hiraoka,T., Hori,F.,
Hume,D., Imotani,K., Ishii,Y., Itoh,M., Izawa,M., Kasukawa,T.,
Kato,H., Kawai,J., Kojima,Y., Konda,M., Koya,S.,
Kurihara,C., Matsuyama,T., Myazaki,A., Nishi,K., Nomura,K.,
Numazaki,R., Ohno,M., Okazaki,Y., Okido,T., Owa,C., Quackenbush,J.,
Salto,R., Salto,R., Sakai,C., Sakai,K., Sano,H., Sasaki,D.,
Soqabe,Y., Suzuki,H., Tagami,M., Tagawa,A., Takahashi,F.,
Tajina,Y., Toya,T., Yamamura,T., Yamanaka,I.,
Yasunishi,A., Yoshida,K., Yoshino,M., Muramatsu,M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1292 totatatcaccgtccacggctacttcctcatcaccttcctctttggcatggtggtcctgg 1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Please visit our web site (http://genome.gsc.riken.go.jp/) for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="G'protein-coupled receptor 97 data source:MGD, source key:MGI:1859670, evidence:ISS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13.1%; Score 216.4; DB 11; Length 1087; 76.8%; Pred. No. 3.7e-38; ive 0; Mismatches 81; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /strain="C57BL/6J"
/db_xref="MGD:MGI:1903138"
/db_xref="taxon:10090"
/clone="3830420G05"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       end: BamHI. Host: DH10B.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="Gpr97"
744. .1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="Gpr97"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              306 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           al Similarity 76.8
278; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .1087
                                                                                                                                                                                                                                                                                                     Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCHTFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        qq
```

```
/organism="Homo sapiens"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/dev_stage="Ami0059"
/dev_stage="noing marrow; Vector: pucl8; Site_1: SmaI; Site_2:
/note="Organ: marrow; Vector: pucl8; Site_1: SmaI; Site_2:
/mai, A mini-library was made by cloning products derived
from ORESTES PCR (U.S. Letters Patent application No. 196
/716 - Ludwig Institute for Cancer Research) profiles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BE831720 432 bp mRNA linear EST 22-SEP-2000 RCO-MT0059-200600-021-a08 MT0059 Homo sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
I (bases 1 to 43)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A.; Bordin, S., Costa, F.F., Goldman, G.H., Carvalho, A.F., Matsukuma, A., Baia, G.S., Simpson, D.H., Brunstein, A., deoliveira, P.S., Bucher, P., Jongeneel, C.V., O'Hare, M.J., Soares, F., Brentani, R.R., Reis, L.F., de Souza, S.J. and Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel: +55-11-2704922
Tel: +51-11-27004922
Tel: +52-11-2707001
Temail: asimpson@ludwig.org.br
This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtmil2.pl?tl=&t2=RCO-WT0059-200 600-021-a08&t3=2000-06-200£44=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Simpson A.J.G.
Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Shotgun sequencing of the human transcriptome with ORF expressed
coctggtggtctggaagatcttcaccctgtcccgtgctacagcggtcaagggagcgggga 1411
                                                                                                agaaccggaagaaggtgctcaccctgctgggcctctcgagcctggtggtgtgacatggg 1471
                                                                                                                                                                                                     ggttggccatcttcaccccgttgggcctctccaccgtctacatctttgcacttttcaact 1531
                                                                                                                                                                                                                                                                                                           1532 ccttgcaaggtgtcttcatctgctggttcaccatcctttacctcccaagtcagagca 1591
                                                                                                                                                                                                                                                                                                                                                                                                             ccacagtetectecte---tactgcaagattggaccaggeccaetecgcateteaagaat 1648
                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                         301 CCACACCCTCCTCCTCCGCACCGCGCGCGTGGACCAGGCCCACTCCGTGTCCCAGGAGT 360
                                                 61 CTTTGGTGGCCTGGAAGATCTTCACTCTGCCCAGTGTCACAGGGGGAAAGGACAGGGGC 120
                                                                                                                                                                                                                                                                                                                                                            241 CICIACAAGGGCICITICAICTICIGCIGGITCAICAICCICIACITCCCTACTACTCAGAGCA 300
                                                                                                                           Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Seq primer: puc 18 forward
High quality sequence start: 27
High quality sequence stop: 432.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE831720
BE831720.1 GI:10264098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Brazi]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1649 ag 1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AG 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
BE831720/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
MEDLINE
COMMENT
  1352
                                                                                                                                                                                                           1472
                                                                                                                                                                                                                                                                                                                                                                                                                1592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOURCE
                                              g
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                           g
                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

ö

```
USDA, ARS, US Meat Animal Research Center
PO Box 166, Clay Center, NE 68933-0166, USA
PO Box 166, Clay Center, NE 68933-0166, USA
PO STO 4936

Enail: smith@email.marc.usda.gov
Single pass sequencing. Bases called and alt_trimmed with phred
and -minmatch 12 options.
PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST 05-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus. 1 (bases 1 to 329)
Fahrentug, S.C., Freking, B.A., Rohret, G.A., Smith, T.P.L., Casas, E. Stone, R.T., Heaton, M.P., Grosse, W.M., Bennett, G.A., Laegreid, W.W. and Keele, J.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Design and use of two pooled tissue normalized cDNA libraries for EST discovery in swine Unpublished (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Sus scrofa"
/db.xref="taxon:9883"
/clone_lib="kaxon:9883"
/tissue_type="pooled"
/lab_host="booled"
/lab_host="booled
                                                                                                                                                                                                                                                                                                                                                                                                                                       339 ctctcaggttccgaggcaggtgatgaaggacgaggacaagcccctgacagagtgcgact 398
                                                                                                                                                                                                                                            399 teceaagageetttttegateeetgeeaggeaacaggtetgtggteegettggeegteae 458
                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                        579 gotggotgagoctotggagatcgtottototoacoagogacogococctaacatgacot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                     Length 856;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BM484584 329 bp mRNA linear 329 bp mRNA linear 338496 MARC 2PIG Sus scrofa cDNA 5', mRNA sequence. BM484584.1 GI:18534912
                                                                                  Score 191.6; DB 10; Length
Pred. No. 1.3e-32;
0; Mismatches 69; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FORWARD: AGGAAACAGCTATGACCAT
BACKWARD: GTTTTCCCAGTCACGACG
Plate: 4 row: P column: 13
Seq primer: ATTTAGGTGACACTATAG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1. .329
                                                                                        11.6%;
77.2%;
                                                                                                                 Best Local Similarity 77.2
Matches 233; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Smith TPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pig.
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ca 640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GA 524
                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BM484584
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
      ORIGIN
                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                       δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         //db_xref="texon:1090"
//clone="lib="niH_CGAP_Mam4"
//clone=lib="niH_CGAP_Mam4"
//clone=lib="niH_CGAP_Mam4"
//issue_type="tip="tip="ref"
/lab_host="DH10B"
//note="Organ: mammary; Vector: pCMV-SPORT6; Site_1: Not1;
//ore="Organ: mammary; Vector: pCMV-SPORT6; Site_1: Not1;
//ore="Organ: mammary; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: Sal1: Cloned unidirectionally. Primer: Oligo dT.
Average insert 2:5 kb. Library constructed by Life
Technologies, catalog # 12018 016. Investigators providing
samples: Lothar Hennighausen/Priscilla Furth, NIH
Reference for transgenic model: Li et al., Cell Growth and
Differentiation 7, 3-11 (1996). Note: this is a NCI_CGAP
                                                                                                                                                                                                                                                               ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B1660803 856 bp mRNA linear EST 12-SEP-2001 603303847F1 NIH_CGAP_Mam4 Mus musculus cDNA clone IMAGE:5349707 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (bases 1 to 866)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov

Tissue Procurement: Lothar Hennighausen Ph.D., Priscilla Furth

Ph.D.
into the DUC 18 vector. Reverse transcription of tissue mRNA and cDNA amplification were performed under low stringency conditions."
                                                                                                                                                                                                                                                                                                                  1440 gggcctctcgagcctggtggtgtgacatgggggttggccatcttcaccccgttgggcct 1499
                                                                                                                                                                                                                                                                                                                                                                                                                                1560 gttcaccatccttacctcccaagtcagagcaccacagtctcctcctctactgcaagatt 1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics. Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM1888 row: n column: 12
High quality sequence stop: 811.
                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                   Query Match 12.6%; Score 207.8; DB 10; Length 432; Best Local Similarity 99.1%; Pred. No. 2.2e-36; Matches 209; Conservative 0; Mismatches 2; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1. 856 /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          246 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BI660803.1 GI:15575039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Library."
241 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA sequence.
BI660803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           house mouse.
                                                                                     107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                  BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B1660803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
```

```
;
0
                                                          Gaps
endometrium, hypothalamus, pituitary, and placenta."
90 a 88 c 86 g 65 t
                                              ;
                                Query Match 10.2%; Score 168.4; DB 10; Length 329; Best Local Similarity 74.8%; Pred. No. 1.4e-27; Matches 211; Conservative 0; Mismatches 71; Indels 0;
                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                 Dp
                                                                                                                          qq
                                                                                                                                                                   δλ
                                                                        qq
                                                                                      QY
                                                                                                              ò
                                                                                                                                         δy
                                                                                                                                                    g
```

Search completed: June 11, 2002, 20:49:55 Job time: 2308 sec

y

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases I to 1650)
Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrowicz, B. and Sands, A.T.
Novel human membrane proteins and polynucleotides encoding the same Patent; WO 0142287-A 43 14-JUN-2201; Lexicon Genetics Incorporated (US)
Lexicon Genetics Incorporated (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT 03-JUL-2001
                                                                                                                                                                          Sequence
Sequence
Mus muscu
AX167301 Sequence
AX167281 Sequence
AX167291 Sequence
AX167285 Sequence
AX167285 Sequence
AX167285 Sequence
AX167285 Sequence
AX167285 Sequence
AX167285 Sequence
AX167287 Sequence
AX167289 Sequence
AX16724 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1650 bp
Sequence 43 from Patent WO0142287.
Ax167301.
AX167301.1 GI:14596745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Homo sapiens"
/db_xref="taxon:9606"
507 c 447 g 383
                                                             AXI67305

AXI67305

AXI67303

AXI67285

AXI67295

AXI67295

AXI67295

AXI67293

AXI67293

AXI67293

AXI67293

AXI67293

AXI67293
                                                                                                                                                                                                                                       AX167267
AX167297
AX167277
AX167311
AX167309
AC022585
AC018552
                                                                                                                                                                                                                                                                                                                             AX167289
AX147806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSA011001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX061726
               AX167281
AX167261
AX167291
                                                                                                                                                                                                                 AX167287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AX136371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 447 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E54092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .1650
                                                                                                                                      55.3 936

50.0 829

48.5 885

46.8 825

46.3 741

38.1 702

34.2 633

34.2 633

34.2 633

34.2 632

34.2 632

34.2 632

34.2 632

34.2 632

37.4 17.4 17.4 15.26

17.4 15.26

11.6 161229
                                                                                                                                                                                                                                                                                                                                                                                                      3350
1425
11587
3393
3711
2082
2822
2822
2834
3686
3845
3845
3774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  313 a
                                                                                                                                                                                                                                                                                                                                                                                  human.
               1543
1454.6
1430.6
1151
1054
1020
955.6
957.6
973
871.6
811
811
872.6
665.6
665.6
563.6
                                                                                                                                                                                                                                                                                         394
287.4
287.4
287.4
266.6
207.2
198.6
185
                                                                                                                                                                                                                                                                                                                                                                                                                                 159.4
                                                                                                                                                                                                                                                                                                                                                                                                                     159.4
                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
AX167301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE
      SOURCE
                                                                                        June 11, 2002, 20:16:47; Search time 2132.3 Seconds (without alignments) 16193.212 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                  1 atggcgacgcccaggggcct.....actccgcatctcaagaatag 1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                        3595312
                  GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                              1797656 seqs, 10463268293 residues
                                                                                                                                                                                                                                                        hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                  Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                   sw model
                                                                                                                                                                                           IDENTITY_NUC Gaport 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 em_htg_hum:*
em_htg_inv:*
em_htg_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Π
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em_htgo_inv:*
                                                                   nucleic search, using
                                                                                                                                                                                                                                                                                 length: 0
length: 2000000000
                                                                                                                                           US-09-733-387-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                9b_htg:*
9b_intg:*
9b_intg:*
9b_on:*
9b_ov:*
9b_pt:*
9b_pt:*
9b_pt:*
9b_ro:*
9b_ro:*
9b_ro:*
9b_ro:*
em_ba:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    em_hum:*
em_in:*
em_mu:*
em_om:*
em_or:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             em_pat: *
em_ph: *
em_pl: *
em_ro: *
em_sts: *
em_un: *
em_vi: *
                                                                                                                                                                                                                                                                                                                                                                      GenEmbl:*
                                                                                                                                                       1650
```

Score

Result No.

Post-processing:

Database

Total number of

Searched:

Title: Perfect score:

Sequence:

OM nucleic

Run on:

Scoring table:

Minimum DB seq Maximum DB seq

Oy 1021 cgggggctgtctt	1201	Oy 1261 tggttccgtgaagg	Qy 1381 tcccqtgctacagc	Qy 1441 ggcctctgagcct 			Oy 1621 gaccaggcccactco	RESULT 2 AX167281 LOCUS AX167281	DEFINITION Sequence 23 1 ACCESSION AX167281 VERSION AX167281.1 C	SOURCE human. ORGANISM Homo sapiens Eukaryota; Me	REFERENCE 1 (bases 1 t AUTHORS Donoho, G., Sc and Sands, A.1 TITLE Novel human n	JOURNAL Patent: WO 01 Lexicon Genet FEATURES SOURCE 1.	/org /db_ BASE COUNT 294 a ORIGIN	Query Match Best Local Similarity
;; 0														
Query Match 100.0%; Score 1650; DB 6; Length 1650; Best Local Similarity 100.0%; Pred. No. 0; 6; Indels 0; Gaps 1 atggcgacgcccaggggcctggggcctgctcctgctcctgctcccgctcccgacctcagt 60	atcttcaacttgaatgacaaggctttgtgcttcaccaagtgcaggcag	tcctgcaatgtggaaaacttgcagagatactggctaaactacgaggcccatctgatgaag		atgaaggacgaggacaagcccctgacagagtgcgacttcccaagagcctttttcgatcc		actetetteaagggoeceeggeteggeetgggagatggeageggggttgaacaatege 540 	ctggtggtttgagtgtgggacaaatgcatgtcaccaagctggttgagctctggagatc 600 	gtetteteteaceagegacegecectaacatgaceteacetgtgtattetgggatgtg 660 	actaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgag 720 	gggaccgtgtgctgctgtgaccacctgaccttttcgccctgctcctgagacccaccttg 780 	gaccagtccacggtgcatatcctcacacgcatctccaggcgggctgtggggtctccatg 840 	atcttcctggccttcaccattattctttatgcctttctgaggctttcccgggagagttc 900 	aagtcagaagatgcccaaagatccacgtggccttggtgcagcctgttcctcctgaat 960 	ctggccttcttggtcaatgtgggagtggctcaaaggggtctgatgctgctggtgggcc 1020
Nuery Masst Lowardatches 1 1 61 61	121	181 181 241 241	301	361	421	481	541	601	661	721	781	841	901	961
Oy Oy Oy Oy Oy	Oy Dp	6 6 6 6	95 Pb	Oy Dp	Oy Dp	Oy Dp	Oy Dp	Oy Dp	o o	Oy Dp	Oy Dp	Qy Dp	Oy Op	Oy Ob

```
However the state of the state of the same better the same better the same better to Genetics Incorporated (US)

Furtheria's Eutheria's Primates; Catarrhini; Hominidae; Homo.

(bases 1 to 1566)

Donoho,G., Scoville,J., Turner,C.A., Friedrich,G., Zambrowicz,B. and Sands,A.T.

Novel human membrane proteins and polynucleotides encoding the same Patent: WO 0142287-A 23 14-JUN-2001;

Lexicon Genetics Incorporated (US)

Location Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-JUL-2001
1200
                                                                                                                                                                                                                              toccottoctacagoggtcaaggaggaggaagaaccggaagaaggtgctcacctgctg 1440
                                                                                                                                                                                                                                                                                                                                                              ttcaccatcctttacctcccaagtcagagcaccacagtctcctcctctactgcaagattg 1620
                                                        aacagctacggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgc
                                                                                                                   aagctgagcctggtggggggggcctgccccctgatggtcatcggcactgggagtgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AX167281 1566 bp
Sequence 23 from Patent W00142287.
AX167281.1 GI:14596735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gaccaggcccactccgcatctcaagaatag 1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
1 475 c 439 g 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human.
```

Length 1566;

Score 1543; DB 6; Pred. No. 9.4e-308;

93.5%; S 100.0%; ᠻ

1081 TTCCACCTCTACCTACC	1141	1201 AACAGCTA	1261	1321	1381 tecegtgatacageggtes 	1441	Oy 1501 tecaceptetacatettigeaettica Dp 1501 TecacegrerAcaTeTTIGEAETTTTTT	AX167261	ACCESTON Sequence 3 Irom Paten ACCESTON AX167261.1 GI:145967 VERYORDS		_	JOUKNAL PATENT: WO U14287-A 3 14 Lexicon Genetics Incorpora FEATURES Location/Qualifie Source 1. 1527	/organism="funo s /Ab_xref="taxon:9 BASE COUNT 295 a 459 c 426 . ORIGIN	Ouery Match Best Local Similarity 99.7%	Mar T	1 AIGECGACGCCCAGG	Db 61 CAGGAAAAGCCCACCGAAGGGCCAAGA
1 atggcgacgcccaggggcttgggggcctgctctgctcctgctcccgacctcaggt 60	caggaaaagcccaccgaagggccaagaacacctgcctggggagcaacacatgtacgac 120 	atcttoaacttgaatgacaaggctttgtgcttcaccaagtgcaggcag	tectgeaatgiggaaaaettgeagagataetggetaaactaegaggeeatetgatgaag 240 	gaaggtgaacacgccttcctgaaggctttggtccagaacctcagc 	accaacactgcagaagacttctatttctctggagcctctcaggttccgaggcaggtg 360	atgaaggacgaggacaagcccctgacagagtgcgacttcccaagagccttttcgatcc 420	ctgccaggcaacaggtctgtggtccgcttggccgtcaccattctggacattggtccaggg 480 	actotottoaaggococoggotoggootgggaatggoagoggogtgttgaacaatogo 540	ctggtggtttgagtgtgggacaaatgcatgtcaccaagctggctg	gtcttetcteaccagegaccgcccctaacatgaccttcacctggtattctgggatgtg 660	actaaaggaccactggagactggtcttctgagggctgctccacggaggtcagacctgag 720 	gggaccgtgtgctgtgaccacctgaccttttcgcctgctcctgagacccaccttg 780 	gaccagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatg 840	atcttcctggccttcaccattattctttatgcctttctgaggctttcccgggagaggttc 900 	aagtcagaagatgccccaaagatccacgtggcctgggtggcagcctgttcctcctgaat 960 	ctggccttcttggtcaatgtgggggtggctcaaaggggtctgatgctgctgctgggcc 1020 	eggggggctgtctccactacttcctgctctgtgccttcacctggatgggccttgaagcc 1080
	61	121	181	241	301	361	421	481	541	601	661 661	721	781	841	901	961 961	1021
									•							oy D	

1,

teins and polynucleotides encoding the same 4-JUN-2001; rated (US) ; PAT 03-JUL-2001 âata; Craniata; Vertebrata; Euteleostomi;
ates; Catarrhini; Hominidae; Homo. !urner, C.A., Friedrich, G., Zambrowicz, B. gtgcttcaccaagtgcaggcagtcgggcagcgac 180 cotgotoctgotoctcotgotocogacotoaggt 60 0; Gaps ore 1454.6; DB 6; Length 1527; ed. No. 1.5e-289; Mismatches 4; Indels 0; linear sactecttgeaaggtg 1543 DNA 347 sapiens" :9606" 6 g 347 1527 bp 00142287.

```
1140
                                                                                                                                                                                                                                1020
                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                       096
                 240
                                          360
                                                  360
                                                           420
                                                                   420
                                                                           480
                                                                                   480
                                                                                            540
                                                                                                    540
                                                                                                            9
                                                                                                                    900
                                                                                                                             999
                                                                                                                                     099
                                                                                                                                             720
                                                                                                                                                     720
                                                                                                                                                              780
                                                                                                                                                                      780
                                                                                                                                                                              840
                                                                                                                                                                                       840
                                                                                                                                                                                               900
                                                                                                                                                                                                       900
                                                                                           actaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgag
                                                                                                                                                 gaccagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatd
                                                                                                                                                                                              accaacactgcagaagacttctatttctctggagccctctcaggttccgaggcaggtg
                                                                                                                                                              gggaccgtgtgctgctgtgaccacctgacctttttcgccctgctcctgagacccaccttg
                                                                                                                                                                                                                aagtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaat
                                                                                                                                                                                                                                                                                                   aacagotacggcctctacaccatccgtgatagggagaaccgcacctctcggagctatgc
                                                                                                                                                                                                                                                 cggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcc
                181
                        241
                                 241
                                         301
                                                 301
                                                          361
                                                                  361
                                                                                           481
                                                                                                   481
                                                                                                                    541
                                                                                                                            601
                                                                                                                                    601
                                                                                                                                             661
                                                                                                                                                     661
                                                                                                                                                             721
                                                                                                                                                                     721
                                                                                                                                                                              781
                                                                                                                                                                                      781
                                                                                                                                                                                              841
                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                           1201
121
        181
                                                                          421
                                                                                   421
                                                                                                           541
                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                961
g
        ò
              Q
                        ò
                               8
                                        δŽ
                                                qq
                                                                g
                                                                                 g
                                                                                           à
                                                                                                   S
                                                                                                           ò
                                                                                                                   å
                                                                                                                            ð
                                                                                                                                   q
                                                                                                                                                    q
                                                                                                                                                                    Q
                                                                                                                                                                                    Db
                                                                                                                                                                                                      g
                                                                                                                                                                                                               à
                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                       Ω
                                                                                                                                                                                                                                                                                                         q
                                                          ò
                                                                          ò
                                                                                                                                            õ
                                                                                                                                                            ç
                                                                                                                                                                              ò
                                                                                                                                                                                              င်
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                  ò
```

```
same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ï
                                                                                                                                                                                                 03-JUL-2001
                                                                                                                                                                                                                                                                         Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                         Ψ.
                                                                                1440
                                                                                                                                                                                                                                                                                                                            encoding the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
TCCCGTGCTACAGCGGTCAAGGAGCGGGGAAGAACCGGAAGAAGAAGTGCTCACCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gaaggtttgacycagaaggtgaacacgcctttcctgaaggctttgtccagaacctcagc
                                                                                 tecegtgetaeaageggteaagageggggaagaaceggaagaagatgeteaecetgetg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atcaccttcctctttggcatggtggtcctggccctggtggtctggaagatcttcaccctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241 GAAGGTITGACGCAGAAGGTGAACACGCCTTTCCTGAAGGCTTTGGTCCAGAACCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atgaaggacgaggacaagccccctgacagagtgcgacttcccaagagccttttcgatcc
                                                                                                                                                                                                                                                            Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteler
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
I (bases 1 to 1458)
Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrow
and Sands, A.T.
Novel human membrane proteins and polynucleotides encoding
Patent: WO 0142287-A 33 14-JUN-2001;
Lexicon Genetics Incorporated (US)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atggcgacgcccaggggcctgggggccctgctcctgctcctgctcccgacctcaggt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               toctgoaatgtggaaaacttgcagagatactggctaaactacgaggcccatctgatgaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                7;
                                                                                                                                                                                                   PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1458;
                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1441; DB 6;
Pred. No. 9.7e-287;
0; Mismatches 0;
                                                                                                                                                                                                   DNA
                                                                                                                                                                                                                                                                                                                                                                                                    ų
                                                                                                                                                                                                                                                                                                                                                                                                  332
                                                                                                                                                                                                AX167291
Sequence 33 from Patent W00142287
AX167291
AX167291.1 GI:14596740
                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
142 c 410 g 33:
                                                                                                                         ggcctctcgagcctggtgggt 1461
                                                                                                                                     GGCCTCTCGAGCCTTGCAAGT 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 87.3%;
Best Local Similarity 99.5%;
Matches 1458; Conservative
                                                                                                                                                                                                                                                                                                                                                                      .1458
                                                                                                                                                                                                                                                                                                                                                                                                  274
                                                                                                                                                                                                                                                    human.
                                                                                                                                                                           RESULT 4
AX167291
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                     1381
                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
                                                            1321
                                                                                1381
                                                                                                                          1441
                                                                                                                                              1441
                                                                                                                                                                                                                                                                                            REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                   1261
                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                           FEATURES
δ
               qq
                                    Qy
                                                     Q
Q
                                                                               Qγ
                                                                                                 Db
                                                                                                                        ò
                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
```

161 ATGAAGGACGAGGACAAGGCCCCTGACAGAGTGCGACTTCCCAAGAGCCTTTTTCGATCC 420	2] ctgccaggcaacaggtctgtggtccgcttggccgtcaccattctggacattggtccaggg 480 	.81 actcttcaagggccccggctcggcctgggagatggcaggggtgttgaacaatcgc 540 	41 ctggtggtttgagtgtgggacaaatgcatgtcaccaagctggctg	 i01 gtcttctctaccagcgaccgcccctaacatgacctcacctgtgtattctgggatgtg 660 i11111111111111111111111111111111111	 i61 actaaaaggaccactggagactggtcttctgagggctgctccacggaggtcagacctgag 720 i11111111111111111111111111111111111	 '21 gggaccgtgtgctgtgaccacctgaccttttcgccctgctcctgagacccaccttg 780 '11 	 '81 gaccagtccacggtgcatatcctcacacgcatctcccaggcggctgtggggtctccatg 840 '111111111111111111111111111111111111	41 atcttoctggcttcaccattattctttatgctttctgaggctttcccgggagagttc 900 	001 aagtoagaagatgococaaagatocacgtggocotgggtggcagootgttootoctgaat 960 	961 ctggccttcttggtcaatgtggggggtggctcaaaggggtctgatgctgctgctggtgggcc 1020 	021 cggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcc 1080 	081 ttccacctctacctgctcgctgtcagggtcttcaacacctacttcgggcactacttcctg 1140 	141 aagctgagcctggtgggcctgcccgccctgatggtcatcggcactgggagtgcc 1200	001 aacagetacggeetetacaccatesgtgatagggagaacegeacetetetggagetatge 1260 	161 tggttccgtgaagggacaaccatgtacgcccttatatcaccgtccacggctacttcctc 1320 	321 atcacettectetttggeatggtggtectggeectggtggtetggaagatetteaeeetg 1380 	981 tocoftgctacagcggtcaaggagcgggggaagaaccggaagaggtgctcaccctgctg 1440 	141 ggcctctcgagcctggtgggtgtga 1465
1 AT	1 G	1 ac	5-5	1 gt	1 P P	1 99 1 60 1	1 ga 1 1 GA	1 at [1 aa 1 AA	G = G	1 cg	1 tt	1 aa 1 AA	- н	1 tg	1 at	1 tc	1 99
36	4 4 2	48	54	09	99	72	78	8 8	06 · .	96	102	108	114	120	126	132	138	144
Op	Qy Db	oy Db	Qy Db	Qy	QY Db	Oy Op	QY	Qy Db	Qy Db	Qy Dp	Qy Dp	Qy Db	Qy Db	Qy Db	QY Db	QY	Oy Dp	Oy Dp

ISM Homo sapiens

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota, Metazoa; Chordata; Craniata; Futeleostomi;

English (Dases 1 to 1515)

RS Donoho,G., Scoville,J., Turner,C.A., Friedrich,G., Zambrowicz,B.

and Sands,A.T.

Novel human membrane proteins and polynucleotides encoding the same lat.

Novel human membrane proteins and polynucleotides encoding the same lat.

RS Location/Qualifiers

Jurce Location/Qualifiers

Jurce Assonism="Homo sapiens"

Adb_xref="taxon:9606"

JUNT 289 a 459 c 422 g 345 t ή, PAT 03-JUL-2001 240 240 420 gtcttotctoaccagogacogococotaacatgacoctcacctgtgtattctgggatgtg 660 Gaps 9 9 1 atggcgacgcccaggggcctggggggcctgctcctgctcctgctcccgacctcaggt teetgeaatgtggaaaacttgeagagatactggetaaactacgaggeeeatctgatgaag atgaaggacgaggacaagcccctgacagagtgcgacttcccaagagccttttcgatcc 7; Length 1515; linear 4; Indels .; 9 86.7%; Score 1430.6; DB 6 99.2%; Pred. No. 1.3e-284; ive 0; Mismatches 4; DNA AX167271 1515 bp Sequence 13 from Patent WO0142287. AX167271 AX167271.1 GI:14596730 Query Match
Best Local Similarity 99.2
Matches 1450; Conservative source RESULT 5
AX167271
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE BASE COUNT ORIGIN ORGANISM REFERENCE AUTHORS 181 241 241 301 361 421 481 541 181 301 361 481 541 601 JOURNAL 421 FEATURES TITLE q οy g qq ÓΫ QQ Qγ qq qq QQ ŏ ŏλ ΩD g $^{\circ}$ οy ò ά ò

ö

Wed

8 ç a o

Q o S g

ò

a

à

q

ò a δý a ò

à

```
1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          teacetteetetttggeatggteetggteetggeetggtgtetggaagatetteaceetgt 1381
 encoding the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ggitcogigaagggacaaccaigtacgcccictataicaccgiccacggciacticcica 1321
                                                                                                                                                                                                                                                                                                                                             574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       814
                                                                                                                                541
                                                                                                                                                                                                    661
                                                                                                                                                                                                                     214
                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                       274
                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                          334
                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                              514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     754
                                                                                                                                                                  601
                                                                                                                                                                                  154
                                                                                                                                                                                                                                                                                                                          394
                                                                                                                Gaps
                                                                                                                                              94
                                                                                                                                                                  agtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaatc
                                                                                                                                                                                                                                                                                                                                                                                                                ctctcttcaagggccccggctcggcctgggaqatggcagcggggtgttgaacaatcgcc
                                                                                                                                                                                                     accagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatga
                                                                                                                                                                                                                                                                                                                                                                                       CCCTTTCACAGGGCCCCCGGCTCGGCTGGGAGATGGCAGCGGCGTGTTGAACAATCGCC
                                                                                                                                                                                                                                                                          ggaccgtgtgctgctgtgaccacctgacctttttcgccctgctcctgagacccaccttgg
                                                                                                                                                                                                                                                                                                                            ACCAGTCCACGGTGCATATCCTCACACGCATCTCCCAGGCGGGCTGTGGGGTCTCCATGA
                                                                                                                ;
                                                                                              Length 1203;
polynucleotides
                                                                                                               Indels
                                                                                              70.4%; Score 1161; DB 6;
ilarity 99.6%; Pred. No. 4.7e-229;
Conservative 0; Mismatches 5;
 Novel human membrane proteins and po
Patent: WO 0142287-A 47 14-JUN-2001;
Lexicon Genetics Incorporated (US)
Location/Qualifiers
                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
384 c 323 g 295
                                                             323 g
                                                                                                        Local Similarity
es 1164; Conserv
                                                                                                Query Match
                                     source
                                                            BASE COUNT
ORIGIN
                                                                                                         Best Loca
Matches
 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                               455
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1322
                                                                                                                                 482
                                                                                                                                                 35
                                                                                                                                                                   542
                                                                                                                                                                                    95
                                                                                                                                                                                                     602
                                                                                                                                                                                                                      155
                                                                                                                                                                                                                                        662
                                                                                                                                                                                                                                                        215
                                                                                                                                                                                                                                                                         722
                                                                                                                                                                                                                                                                                          275
                                                                                                                                                                                                                                                                                                            782
                                                                                                                                                                                                                                                                                                                            335
                                                                                                                                                                                                                                                                                                                                              342
                                                                                                                                                                                                                                                                                                                                                              395
                                                                                                                                                                                                                                                                                                                                                                               902
                                                                                                                                                                                                                                                                                                                                                                                                                962
                                                                                                                                                                                                                                                                                                                                                                                                                                515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         815
                           FEATURES
                                                                                                                                  ò
                                                                                                                                                 g
                                                                                                                                                                   ŏ
                                                                                                                                                                                   g
                                                                                                                                                                                                    δ
                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                       \Omega
                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δŽ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PAT 03-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo saplens Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1203) Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrowicz, B. and Sands, A.T.
                                                                                                                                                                                           1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                  tecegigetacageggicaaggagegggggaagaaceggaagaagaggtgeteaeeetgetg 1440
                                                                                                                                                                                                                                                                                                   aagctgagcctggtgggctggggcctgcccgccctgatggtcatcggcactgggagtgcc 1200
                                                                                                                                                                                                                                                                                                                                                                      tggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctc 1320
                                                                                      780
                                                                      780
                                                                                                                                          900
                                                                                                                                                           960
                                                    aagtcagaagatgcccaaagatccacgtggccctgggtggcagcctgttcctcctgaat
                                                                                                                                                                                                                                                                                                                                                                                1261 TGGTTCCGTGAAGGGACAACCATGTACGCCCTCTATATCACCGTCCACGGCTACTTCCTC
                                                                                                                         atcttcctggccttcaccattattctttatgcctttctgaggctttcccgggagggttc
GTCTTCTCTCACCAGCGACCGCCCCTAACATGACCCTCACCTGTGTATTCTGGGATGTG
                                                                                                                                                                                                                                                                                                           1141 AACTGAGCCTGGTGGGCCTGCGCCCCCCTGATGGTCATCGGCACTGGGGGCCTGCCCC
                                                                                                                                                                            AAGTCAGAAGATGCCCCAAAGATCCACGTGGCCCTGGGTGGCAGCCTGTTCCTCCTGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AX167305
Sequence 47 from Patent W00142287.
AX167305.1 GI:14596747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                         1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
KEYWORDS
SOURCE
                                  199
                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                     1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
601
                 661
                                                                    721
                                                                                     781
                                                                                                      781
                                                                                                                         841
                                                                                                                                                                           901
                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                   1201
                                                    721
                                                                                                                                                           901
                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
AX167305
LOCUS
```

ద

q

ò g δý

ò

٩

ò

a

ò

a

```
/organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AX167303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
ACCESSION
                                                                                                                                                                           1082
                                                                                                                                                                                                                                  695
                                                                                                                                                                                                                                                    1202
                                                                                                                                                                                                                                                                                                                             1322
                                                                                                                                                                                                                                                                                                                                               875
                                                                                                                                                                                                                                                                                                                                                                  1382
                                                                                                                                                                                                                                                                                                                                                                                                      1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                    962
                                                                                                                                                                                                                1142
                                                                                                                                                                                                                                                                                                                                                                                                                                           1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                         1262
         335
                                                              902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
AX167303
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                    Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                           ^{\circ}
                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                           δy
                                           g
                                                              Qγ
                                                                             g
                                                                                                   οy
                                                                                                                    d
                                                                                                                                     Qy
                                                                                                                                                        g
                                                                                                                                                                           οχ
                                                                                                                                                                                          g
                                                                                                                                                                                                            δŽ
                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                              Novel human membrane proteins and polynucleotides encoding the same Patent: WO 0142287-A 27 14-JUN-2001; Lexicon Genetics Incorporated (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ó
                                                                                                                                                                                                                                   PAT 03-JUL-2001
                                                                                                                                                                                                                                                                                  Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
I (bases 1 to 1119)
Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrowicz, B.
and Sands, A.T.
                                                                       1054
                                                                                          1561
                                                                                                                               1621
                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        accagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatga
TCACCTTCCTCTTTGGCATGGTGGTCCTGGCCCTGGTGGTCTGGAAGATCTTCACCCTGT
                                                                                         ccaccgtctacatctttgcacttttcaactccttgcaaggtgtcttcatctgctgctggt
                                                                                                            1055 CCACCGTCTACATCTTTGCACTTTTCAACTCCTTGCAAGGTGTCTTCATCTGCTGGT
                                                                                                                               teaceatectttaeeteceaagteagageaceacagtetectectetaetgeaagattgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ctaaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ggaccgtgtgctgctgtgaccacctgacctttttcgccctgctcctgagacccaccttgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACCGTGTGCTGTGACCACCTGACCTTTTTCGCCCTGCTCCTGAGACCCACCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .<u>`</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                   linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1054; DB 6;
Pred. No. 5.2e-207;
0; Mismatches 5;
                                                                                                                                                                                                                                   DNA
                                                                                                                                                                                                                                                                                                                                                                                                                ىد
                                                                                                                                                                                                                                 AX167285
Squence 27 from Patent W00142287.
AX167285
AX167285.1 GI:14596737
                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/db_xref="taxon:9606"
352 c 315 g 270
                                                                                                                                                                    accaggcccactccgcatctcaagaatag 1650
                                                                                                                                                                             ACCAGGCCCACTCCGCATCTCAAGAATAG 1203
                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                   63.98;
99.58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 63.9
Best Local Similarity 99.5
Matches 1057; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                ದ
                                                                                                                                                                                                                                                                                                                                                                                                                182
                                                                                                                                                                                                                                                                                 human.
                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                          DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
PRIGIN
                                                                                                                                                                                                                                                                                        ORGANISM
875
                  1382
                                                                                                                              1562
                                                                                                                                                 1115
                                                      1442
                                                                                          1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 782
                                                                                                                                                                   1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            722
                                                                                                                                                                                                                                                                                                                                                        JOJENAL
                                                                                                                                                                                                                                                                        KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                        AX167285
                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ωp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                g
                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
a
                                  셤
                                                                      g
                                                                                         QΥ
                                                                                                            a
                                                                                                                              ò
                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                 oy
                                                      οy
```

```
Homo sapiens
Eukaryota; Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Bakaryota; Metazoa: Chordata; Catarrhini; Hominidae; Homo.
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1020)
Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrowicz, B. and Sands, A.T.
Novel human membrane proteins and polynucleotides encoding the same Patent: WO 0142287-A 45 14-JUN-2001;
Lexicon Genetics Incorporated (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT 03-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                    tecacetetacetgetegetgteagggtetteaacacetacttegggeactactteetga 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tcacetteetetttggcatggteetggteetggtggtetggaagatetteacetgt 1381
                                                                                                                                                                                                                                                                                                                                                                                       694
                                                                                                                                                                                                                                                                                                                 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               815 GGTTCCGTGAAGGGACAACCATGTACACCCTCTATATCACCGTCCACGGCTACTTCCTCA 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               994
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCTGAGCCTGGTGGGCTGGGGCCTGCCCCCTGATGGTCATCGGCACTGGGAGTGCCA 754
                                                                                        454
                                                                                                                             961
                   394
                                                       agctgagcctggtgggctggggcctgcccgccctgatggtcatcggcactggggagtgcca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    agtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaatc
                                                                                                                                                tggccttcttggtcaatgtggggagtggctcaaagggggtctgatgctgctggtgggccc
                                                                                                                                                                                                                         acagetacggcetetacaccatecgtgatagggagaaccgcacetetetggagetatget
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCACCTTCCTCTTTGGCATGGTGGTCCTGGCCCTGGTGGTCTGGAAGATCTTCACCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ccaccgictacatctitgcactittcaactccttgcaaggig 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1055 CCACCGTCTACATCTTTGCACTTTTCAACTCCTTGCAAGGTG 1096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020 bp
WO0142287.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 45 from Patent AX167303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AX167303.1 GI:14596746
```

```
DEFINITION
ACCESSION
                                                                                                    source
                                                       ORGANISM
                                                                                                                BASE COUNT
ORIGIN
                                                                    REFERENCE
AUTHORS
       196
                                                                                                                                                                      542
                                                                                                                                                                                               155
                                                                                                                                                   482
                                                                                                                                                             35
                                                                                                                                                                             95
                                                                                                                                                                                                                 215
                                                                                      JOURNAL
                                                                                                                                                                                       602
                                                                                                                                                                                                        662
                   RESULT
AX167265
                                                                                                                                                                                                                          722
                                                                                                                                                                                                                                   275
                                                                                                                                                                                                                                            782
                                                                                                                                                                                                                                                              842
                                                                                                                                                                                                                                                                                                                   1022
                                          VERSION
KEYWORDS
                                                                                                                                                                                                                                                     335
                                                                                                                                                                                                                                                                      395
                                                                                                                                                                                                                                                                                902
                                                                                                                                                                                                                                                                                         455
                                                                                                                                                                                                                                                                                                  962
                                                                                                                                                                                                                                                                                                          515
                                                                                                                                                                                                                                                                                                                           575
                                                                                               FEATURES
                                                                                  TITLE
                                                   SOURCE
       셤
                                                                                                                                                             g
                                                                                                                                                                      ò
                                                                                                                                                                             Q
                                                                                                                                                                                      ò
                                                                                                                                                                                              g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                               g
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                  δ
                             ö
                                                                                                                                               1050
                                                                                                                                                               1170
                                                                                                                                                                                                   1230
                                                                                                                                                                                                                     1290
                                                                                                                                                                                                                                       1350
                                                                                                                                                                                                                                                         1410
                                                                                                                                                                                                                                                                          1470
                                                                                                                                                                                                                                                                                            1530
                                                       750
                                                                                                                                                                                                                                                                                                                                1650
                                                               120
                                                                        810
                                                                                          870
                                                                                                   240
                                     690
                                                                                 180
                                                                                                            930
                                                                                                                     300
                                                                                                                             990
                                                                                                                                                        420
                                                                                                                                                                                           540
                                                                                                                                      360
                                                                                                                                                                                                            900
                                                                                                                                                                                                                              099
                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                     900
                             Gaps
                                              9
                                                     ttttcgccctgctcctgagacccaccttggaccagtccacggtgcatatcctcacacgc
                                                                           atctcccaggcgggctgtggggtctccatgatcttcctggccttcaccattattctttat
                                                                                              gccctgggtggcagcctgttcctcctgaatctggccttcttggtcaatgtgggagtggc
                                                                                                          gcctttctgaggctttcccgggagaggttcaagtcagaagatgccccaaagatccacgtg
                                                                                                                                gggttggccatcttcaccccgttgggcctctccaccgtctacatctttgcacttttcaac
                                                                                                                                                                                                                                                                                               accacagtctcctcttactgcaagattggaccaggcccactccgcatctcaagaatag
                             ò
                   Length 1020;
                            Indels
                  Score 1020; DB 6; I
Pred. No. 5.3e-200;
); Mismatches 0;
 u
 256
 ρ
 271
                 61.8%; Scilarity 100.0%; P
 O
 321
                 Query Match
Best Local Similarity
Matches 1020; Conserv
 ø
172
COUNT
                                    631
                                                                                                                                                              1051
                                                     691
                                                              61
                                                                      751
                                                                               121
                                                                                        811
                                                                                                 181
                                                                                                          871
                                                                                                                  241
                                                                                                                            931
                                                                                                                                    301
                                                                                                                                                      361
                                                                                                                                                                                1111
                                                                                                                                                                                                  1171
                                                                                                                                                                                                           541
                                                                                                                                                                                                                    1231
                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                     1291
                                                                                                                                                                                                                                                       1351
                                                                                                                                                                                                                                                                         1411
                                                                                                                                                                                                                                                                                          1471
                                                                                                                                             991
                                                                                                                                                                       421
                                                                                                                                                                                         481
                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                            1531
                                                                                                                                                                                                                                                                                                                              1591
                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                     901
BASE CO
                                          g
                                    à
                                                     ð
                                                             Ω
                                                                     δý
                                                                              ρp
                                                                                        ò
                                                                                                 g
                                                                                                                  g
                                                                                                                           ò
                                                                                                                                   qq
                                                                                                                                             õ
                                                                                                                                                   g
                                                                                                                                                                     QQ
                                                                                                                                                                                      g
                                                                                                                                                                                                         Ω
                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                     >
                                                                                                                                                             ò
                                                                                                                                                                               ò
                                                                                                                                                                                               οy
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                        ç
                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                  Op
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                              ò
```

```
03-JUL-2001
                                                                                                                                                                                 same
                                                                                                                                                                                                                                                                                                             ö
                                                                                                                             Chordata; Craniata; Vertebrata; Euteleostomi;
Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                            m,
           1020
                                                                                                                                                                               encoding the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                             214
                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                      154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      574
                                                                                                                                                           Zambrowicz
                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                94
ctaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ctctcttcaagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                        Length 1080;
                                                                                                       human.

Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu Hammalia; Eutheria; Primates; Catarrhini; Hominidae; H 1 (bases 1 to 1080)
Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zam and Sands, A.T.

Novel human membrane proteins and polynucleotides encc Patent: WO 0142287-A 7 14-JUN-2001;
Lexicon Genetics Incorporated (US)
                                                           linear
                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                      ; DB 6;
.5e-189;
es 9;
                                                            DNA
                                                                                                                                                                                                                                                                                      Score 965.6; I
Pred. No. 8.5e.
0; Mismatches
                                                                                                                                                                                                                                                 259
                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
336 c 302 g 255
                                                           1080 bp
WO0142287.
                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                          0;
                                                        AX167265
Sequence 7 from Patent 1
AX167265
AX167265.1 GI:14596727
                                                                                                                                                                                                                                                                                      Similarity 99.1%; Conservative
                                                                                                                                                                                                                    .1080
                                                                                                                                                                                                                                                 ø
                                                                                                                                                                                                                                                183
                                                                                                                                                                                                                                                                                                         971;
                                                                                                                                                                                                                                                                                      Query Match
Best Local S:
Matches 971
```

Oy 722 ggaccgtgtgctgtgaccacctgaccttttcgccctgctcctgagacccaccttgg 781 Db 275 GGACCGTGCTGACCACTTTTCGCCCTGCTCTGAGACCCACCTTGG 334 Oy 782 accagtccacggtgcatatcctcacacgcatctccaggcggctgtggggtctcatga 841	1082 tecaectetacetgetgetgetgetgetgetgetgetgetgetgetgetge	Oy 1262 ggttccgtgaagggacaaccatgtacgccctctatatcaccgccacggctacttcctca 1321	RESULT 11 AX167275 LOCUS DEFINITION Sequence 17 from Patent WO0142287. ACCESSION AX167275. AX167275 AX167275 AX167275. AX167275.1 GI:14596732 KEYWORDS ONGANISM Homo Sapiens COURCE ORGANISM Homo Sapiens COURCE ORGANISM Eatheria: Primates; Catarrhin; Hominidae; Homo. REFERENCE 1 (bases 1 to 1068) AUTHORS DONOHO, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrowicz, B. AUTHOR ANOHOL Human membrane proteins and polynucleotides encoding the same JOURNAL Patent: WO 0442287A 17 14-UN-2001; FEATURES SOURCE 1. Location/Qualifiers SOURCE 1. Location/Qualifiers SOURCE 1. Location/Qualifiers SOURCE 1. Location/Qualifiers
1082 tccacctctacctgctcgctgtcagggtcttcaacacctacttcgggcactacttcctga 	Db 935 CCCGTGCTACAGCGGGGGGAAGAACCGGAAGAAGGTGCTCACCCTGCTGG 994 Qy 1442 gcctctcgagcctggtggt 1461 Db 995 GCCTCTCGAGCTTGCAAGT 1014	PURGANISM Homo sapiens Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. REFERENCE Load Load	Query Match 57.7%; Score 952; DB 6; Length 1011; Best Local Similarity 98.8%; Pred. No. 5.4e-186; Andels 7; Gaps 1; Matches 972; Conservative 0; Mismatches 5; Indels 7; Gaps 1; QY 482 ctctcttcaagggcccccggctcggcctgggagatggcagcgcgtgttgaacaatgcc 541 111111111111111111111111111111111111

g ò

ò a õ g à 3 õ g ò Ω ò qq

```
BASE COUNT
ORIGIN
                                                                          ORGANISM
                  886
        1442
                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                       871
                                                                                                                                                                                                          691
                                                                                                                                                                                                                              751
                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                  811
                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                             931
                                  RESULT 1
AX167283
                                                          VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                 991
                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                      1051
                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                          1111
                                                                                                                                                                                                                                                                                                                                                                               1171
                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                         PEATURES
                                                                                                         TITLE
                  g
        Óγ
                                                                                                                                                                                               g
                                                                                                                                                                                                                   g
                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                               ó
                                            ï
                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                     1261
                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                         1441
                                                                                            tcttctctcaccagogaccgccctaacatgacctcacctgtgtattctgggatgtga 661
                                                     541
                                                                             721
                                                                                                                                                            841
                                                                          601
                                                                                                                            274
                                                                                                                                       781
                                                                                                                                                 334
                                                                                                                                                                     394
                                                                                                                                                                                901
                                                                                                                                                                                         454
                                                                                                                                                                                                    961
                                                                                                                                                                                                              514
                                                                                                                                                                                                                                  574
                                                                                                                                                                                                                                                       634
                                            Gaps
                                                                                                                                                                                                                                                                            694
                                                                                                                                                                                                                                                                                                                     814
                                                                                                                                                                                                                                                                                                                                          874
                                                                                                                                                                                                                                                                                                                                                              934
                                                              94
                                                                                                                                                                                                                                                                                                                                                                                   987
                                                                                                                ctctcttcaagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc
                                                          tcttcctggccttcaccattattctttatgcctttctgaggctttcccggggagagttca
                                                                                                                                                                                                                                                                                                                              tcaccttcctctttggcatggtcctggccctggtggtcggaagatcttcaccctgt
                                                                                                                                                                                                                                                                                                                                                        cccgtgctacagcggtcaaggagcggggaagaaccggaagaaggtgctcacctgctgg
                                                                                                                                                                                                                                                                                                                                                                              7;
                                 Length 1068;
                                          Indels
                               Score 941.6; DB 6;
Pred. No. 7.5e-184;
0; Mismatches 9;
            ų
            257
/organism="Homo sapiens"
/db_xref="taxon:9606"
336 c 298 q 25
            298 g
                               ch
11 Similarity 98.4%;
964; Conservative
           177
                              Query Match
Best Local S:
Matches 964,
          BASE COUNT
                                                                                                                                                         782
                                                                                                                                                                             842
                                                                                                                                                                                                  902
                                                   482
                                                                        542
                                                                                 95
                                                                                                                          215
                                                                                                                                               275
                                                                                                                                                                    335
                                                             35
                                                                                            602
                                                                                                      155
                                                                                                                                                                                                            455
                                                                                                                662
                                                                                                                                     722
                                                                                                                                                                                                                                           1022
                                                                                                                                                                                                                                                     575
                                                                                                                                                                                                                                                                1082
                                                                                                                                                                                                                                                                          635
                                                                                                                                                                                                                                                                                     1142
                                                                                                                                                                                                                                                                                               695
                                                                                                                                                                                                                                                                                                         1202
                                                                                                                                                                                                                                                                                                                    755
                                                                                                                                                                                                                                                                                                                              1262
                                                                                                                                                                                                                                                                                                                                                  1322
                                                                                                                                                                                                                                                                                                                                                                       1382
```

å g ò g ç g ò ą

ò g g

ò qq ò

ò

g

ð

```
заше
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                  03-JUL-2001
                                                                                                                                                                                                     Euteleostom1;
                                                                                                                                                                                   Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 936)
Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrowicz, B. and Sands, A.T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggtc 1110
                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9ccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatcatgt 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      631 atgaccctcacctgtgtattctgggatgtggactaaagggaccactggagactggtctct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 ATGACCCTCACCTGTGTATTCTGGGATGTGACTAAAGGGACCACTGGAGCTGTCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ttttcgccctgctcctgagacccaccttggaccagtccacggtgcatatcctcacacgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                atctcccaggcgggctgtggggtctccatgatcttcctggccttcaccattattctttat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gcctttctgaggctttcccgggagaggttcaagtcagaagatgcccaaagatccacgtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gccctgggtggcagcctgttcctcctgaatctggccttcttggtcaatgtgggagtggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTGCCTTCACCTGGATGGCCTTGAAGCCTTCCACCTCTACCTGCTCGCTGTCAGGGTC
                                                                                                  PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 936;
                                                                                                  linear
                                                                                                                                                                                                                                                                          polynucleotides
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 55.3%; Score 913; DB 6; Lø
Best Local Similarity 100.0%; Pred. No. 5.9e-178;
Matches 913; Conservative 0; Mismatches 0;
                                                                                                  DNA
                                                                                                                                                                                                                                                                      Novel human membrane proteins and pol
Patent: WO 0142287-A 25 14-JUN-2001;
Lexicon Genetics Incorporated (US)
                                                                                                                                                                                                                                                                                                                                                                          231
                                                                                                  936 bp
WO0142287
                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/db_xref="taxon:9606"
289 c 263 g 233
                                                                                                                                                                                                                                                                                                                 Location/Qualiflers
1. .936
                                                                                                              Patent
GI:14596736
                                                                                                              from
                                                                                               AX167283
Sequence 25 1
AX167283
AX167283.1 G
                                                                                                                                                                                                                                                                                                                                                                         153
                                                                                                                                                                       human
                                                                                                           DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                  source
```

```
agggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacgcc 1290
                                                                                                                                                                      gccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat 1230
                                                             tcaaaggggtctgatgctgctgggggccgggggggctgtcttccactacttcctgctc 1050
                                                                                                                                                                                                                                             241 GCCTTTCTGAGGCTTTCCCGGGAGAGTTCAAGTCAGAAGATGCCCCAAAGATCCACGGG 300
                                                                                                                                                                                AGGGAGAACCGCACCTCTCTGGAGCTATGCTGGTTCCGTGAAGGGACAACCATGTACGCC
                                                                     1411 aagaaccggaagaaggtgctcaccctgctgggcctctcgagcctggtgggt 1461
                                                                                                                                                                                                                                                                                                                            49.2%;
ilarity 99.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ๙
                                                                                                                                                                                                                                                                                                                                                                                                                             human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Simil
Matches 828;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                   1111
                                                                                                                                                                       1171
                                                                                                                                                                                                           1231
                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                              1291
                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                14
                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                             991
                                                                                361
                                                                                                                                                                                                                                                                                 1351
                                                                                                                  421
                                                                                                 1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                                                RESULT 1
AX167293
                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                 q
                          ōλ
                                           Q
                                                             δy
                                                                           qq
                                                                                                ŏ
                                                                                                                 g
                                                                                                                                 δy
                                                                                                                                                   qq
                                                                                                                                                                      δy
                                                                                                                                                                                     Db
                                                                                                                                                                                                         QΥ
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                    óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ó
                                                                                                                                                                                                                                                                                                                                                                         same
                                                                                                                                                                                                                                                                03-JUL-2001
                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 897)
                                                                                                                                                                                                                                                                                                                                                    Donoho, G., Scoville, J., Turner, C.A., Friedrich, G., Zambrowicz, B. and Sands, A.T.
Novel human membrane proteins and polynucleotides encoding the s
Patent: WO 0142287-A 5 14-JUN-2001;
Lexicon Genetics Incorporated (US)
                                                     1350
                                                                                        1410
                                                                                                                           1470
                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     870
                                                                                                                                             840
541 GCCCTGATGGTCATCGGCACTGGGAGTGCCAACAGCTACGGCCTCTACACCATCCGTGAT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           631 atgaccctcacctgtgtattctgggatgtgactaaagggaccactggagactggtcttct 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tttttcgccctgctcctgagacccaccttggaccagtccacggtgcatatcctcacacgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gcctttctgaggctttcccgggagaggttcaagtcagaagatgccccaaagatccacgtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ATGACCTCACCTGTGTATTCTGGGATGTGACTAAAGGGACCACTGGAGACTGGTCTTCT
                                                                                                                                    PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 897;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 824.6; DB 6;
Pred. No. 9.6e-160;
0; Mismatches 4;
                                                                                                                                                                                                                                                                DNA
                                                                                                                                                                                                                                                            Sequence 5 from Patent WO0142287.
                                                                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
273 c 250 g .220
                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                         AX167263.1 GI:14596726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50.0%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 827; Conservative
                                                                                                                                                                                                1531 tccttgcaaggtg 1543
                                                                                                                                                                                                           TCCTTGCAAGGTG 913
                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                      ø
                                                                                                                                                                                                                                                                                                                                                                                                                                     154
                                                                                                                                                                                                                                                                                                            human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                               LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
                                                                                                                                                            1471
                                                                                                                                                                                                                                                                                                                   ORGANISM
                 1231
                                                    1291
                                                                                       1351
                                                                                                         721
                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     811
                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        871
                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                  KEYWORDS
SOURCE
                                                                                                                                                                                                                                                     AX167263
                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                       TITLE
                                                                                                                                                                                                                                               RESULT
                                 q
                                                                                                                                         Ωp
                                                                                                                                                                               g
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                 ŏ
                                                                 g
                                                                                                        qq
                                                                                                                                                              ò
                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                       δ
                                                                                                                          Qγ
```

009

420

```
same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1;
       03-JUL-2001
                                                                                                             Homo sapiens

Bukaryots; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryots; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

I (bases 1 to 828)

Donoho,G., Scoville,J., Turner,C.A., Friedrich,G., Zambrowicz,B.

and Sands,A.T.

Novel human membrane proteins and polynucleotides encoding the sar

Patent: WO 0142287-A 35 14-JUN-2001;

Lexicon Genetics Incorporated (US)

Localion/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 828;
         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                Score 811; DB 6; I
Pred. No. 6.1e-157;
0; Mismatches 0;
           DNA
                                                                                                                                                                                                                                                                                                                                                            205
828 bp
Sequence 35 from Patent WO0142287.
AX167293.
AX167293.1 GI:14596741
                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/db_xref="taxon:9606"
256 c 234 q 2067
```

Wed

/db_xref-"taxon:9606"

ä

us-09-733-387-43.rge

```
completed:
                                                                                                                                                                                                                                                                                                                                                                                              Job time: 4160
        BASE COUNT
ORIGIN
                                                     631
                                                                            691
                                                                                      61
                                                                                                             121
                                                                                                  751
                                                                                                                        811
                                                                                                                                   181
                                                                                                                                                         241
                                                                                                                                                                                301
                                                                                                                                                                                                       361
                                                                                                                                                                                                                  1051
                                                                                                                                                                                                                                        1111
                                                                                                                                              871
                                                                                                                                                                    931
                                                                                                                                                                                           991
                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                              1171
                                                                                                                                                                                                                                                                                    1231
                                                                                                                                                                                                                                                                                                           1291
                                                                                                                                                                                                                                                                                                                                 1351
                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                       1411
                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                         Search
                                                     ò
                                                                                      g
                                                                g
                                                                           οy
                                                                                                 δ
                                                                                                           g
                                                                                                                      οy
                                                                                                                                  g
                                                                                                                                              Ω
                                                                                                                                                        Q
                                                                                                                                                                    Q
                                                                                                                                                                               g
                                                                                                                                                                                           ò
                                                                                                                                                                                                    셤
                                                                                                                                                                                                                 à
                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                               임
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                    οž
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                        the same
                                                                                                                                                                                                                                                                                                                      03-JUL-2001
                                                                                                                                                                                                                                                                                                                                                            Euteleostomi;
                                                                                                                 1050
                                                                                                                                        1110
                                                                                                                                                            ttcaacacctacttcgggcactacttcctgaagctgagcctggtgggctggggcctgcc 1170
                                                                                                                                                                                     1230
                                                                                                                                                                                                           1290
                                                                                                                                                                                                                                  1350
                                                                                                                                                                                                                                                        1410
  750
                      870
                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                             m
             120
                                                          240
                                                                     930
                                                                                300
                                                                                                                             420
                                                                                                                                                                          540
                                                                                                                                                                                                900
                                                                                                                                                                                                                       099
                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                             Zambrowicz,
tgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggtc
                                                                                                                                            gccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat
                                                                                                                                                                                         1465
                                                                                                                                                                                                                                                                                                                                                                                      Novel human membrane proteins and polynucleotides encoding Patent: WO 0142287-A 15 14-JUN-2001; Lexicon Genetics Incorporated (US) Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 885)
Donoho,G., Scoville,J., Turner,C.A., Friedrich,G., Zambrov
and Sands,A.T.
                                                                                                                                                                                                                                                                                                                      PAT
                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                   AX167273 885 bp
Sequence 15 from Patent W00142287.
AX167273.1 GI:14596731
                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                               human
                                                                                                                                                                                                                                                                                                        RESULT 15
AX167273
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                             source
                                 121
           61
                                                       181
                                                                                                                                                                                              541
                                             811
                                                                              241
                                                                                                                                      1051
                                                                                                                                                             1111
                                                                                                                                                                                   1171
                                                                                                                                                                                                                                                                           1411
                      751
                                                                   871
                                                                                         931
                                                                                                     301
                                                                                                                991
                                                                                                                          361
                                                                                                                                                 421
                                                                                                                                                                       481
                                                                                                                                                                                                          1231
                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                1291
                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                      1351
                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
à
          g
                                g
                                                     Ω
                      ò
                                            à
                                                                             g
                                                                                                   Db
                                                                                                                          g
                                                                                                                                      č
                                                                                                                                                 a
                                                                   ò
                                                                                         å
                                                                                                                ò
                                                                                                                                                            å
                                                                                                                                                                      g
                                                                                                                                                                                  ò
                                                                                                                                                                                            g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                           ò
```

```
1050
                                                                                                                                                                                                                                                1110
                                                                                                                                                                                                                                                                           1170
                                                                                                                                                                                                                                                                                                    1230
                                                                                                                                                                                                                                                                                                                               1290
                                                                                                                                                                                                                                                                                                                                                          1350
                                                                                                                                                                                                                                                                                                                                                                                     1410
                                                       690
                                                                                       810
                                                                                                                         180
                                                                                                                                     870
                                                                                                                                                   240
                                                                                                                                                                930
                                                                                                                                                                                          066
                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                       540
                                                                                750
                                                                                                                                                                             300
                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                             099
                                                                                                                                                                                                                                                                                                                                                                       720
                                          Gaps
                                                                  9
                                                    gagggctgctccacggaggtcagacctgaggggaccgtgtgctgctgtgaccacctgacc
                                                                                                          tttttcgccctgctcctgagacccaccttggaccagtccacggtgcatatcctcacacgc
                                                                                                                tgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggtc
                                                                                                                                                                                                                                                      ttcaacacctacttcgggcactacttcctgaagctgagcctggtgggctggggcctgccc
                                                                                                                                                                                                                                                                                                    gccctgatggtcatcggcactgggagtgccaacagctacggcctctacacccatccgtgat
                                                                                                                                                                                                                                                                                                           7;
                           885;
                                                                                                                                                                                                                                                                                                                                                                                                              aagaaccggaagaaggtgctcaccctgctgggcctctcgagcctggtgggt 1461
                            Length
                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      Score 800.6; DB 6;
Pred. No. 8.5e-155;
0; Mismatches 4;
Ų,
218
                                                                                                                                                                                                                                                                                                                                                                                                                                                      21:26:07
 ģ
246
                          48.5%;
ilarity 98.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002,
O
                                                                                                                                                                                                                                                                                                                                                                                                                                                      June 11,
                                 Similarity
ď
148
                                                                                                                                                                                                                                                                                                                                                                                                                      AAGAACC-
                                       820;
                           Query Match
                                 Best Local
Matches 82
```

Human novel G-prot DNA encoding novel Human novel G-prot Human bone marrow Human bone marrow Human EST-derived

AAS79005

novel novel novel

Human novel G-prot Human novel G-prot Human novel G-prot Human secreted pro Human necreted pro Human novel G-prot Human secreted pro

AAD08767 AAA78394 AAD07673 AAD08784 AAD07657 AAD08783

bone marrow nGPCR38 codi immune/haema

.mmune/haema

Human Human

Human

secreted pro novel G-prot immune/haema

Human Human Human Human

AAD0877

633 690 690 690 690 690 690 690 603 603 603 603 603 603 603 603

bone marrow

novel G-prot

secreted pro

novel

Human Human

polynucleot

Human Human Human

immune/haema immune/haema novel G-prot novel G-prot

```
941.6
913
824.6
                         811
800.6
665.6
665.6
663.4
6611.4
6011.4
609.4
609.4
495.2
495.2
                                                                                                                         472
394
June 11, 2002, 20:20:01; Search time 212.41 Seconds (without alignments) 13336.984 Million cell updates/sec
                                                                                                                                                                                             1 atggcgacgcccaggggcct.....actccgcatctcaagaatag 1650
           Compugen Ltd
                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                  1736436 seqs, 858457221 residues
     GenCore version 4.5
Copyright (c) 1993 - 2000 Comp
                                                                                                                                                             Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                               OM nucleic - nucleic search, using sw model
                                                                                               IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                         N_Geneseq_032802:*
                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                     US-09-733-387-43
1650
                                                                           Perfect score:
                                                                                               Scoring table:
                                                                                  Sequence:
                                                                                                                  Searched:
                                            ..
o
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES			DB ID Description		22 AAD08779	22 AAD08769	22 AAD08759	22 AAD08774	22 AAD08764 Human novel G-prot	22 AAD08781	22 AAD08771	22 AAD08780	27.000764
			re Match Length DB I	1 1 1 1					1515				•
•	*	Query	Match		100.0	93.5	88.2	87.3	86.7	70.4	63.9	61.8	a a
			Score	1 (1650	1543	1454.6	1441	1430.6	1161	1054	1020	965
		Result	No.			7	ĸ	4	'n	9	7	80	o

RESULT 1 AAD08779 ID AAD08779 XX XX AAD08779 XX AAD08779; XX AAD08779; XX AAD08779; XX AAD08779; XX W ACCOPTED 1 (first entry) XX XX XX XX XX XX Human novel G-protein coupled receptor (NGPCR) #22. XX XX XX XX XX XX XX XX W Accoptor; NGPCR; signal transduction; XX XX XX Homo sapiens. XX
--

~

us-09-733-387-43.rng

2001-381634/40

AT;

Sands

```
The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand blading. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene products are useful for identifying compounds are useful in the creasion or gene product activity. Such compounds are useful in the creasion or gene product activity. Such compounds are useful in the creasing modulation of disorders related to NGPCR function and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and for the prognostic evaluation of disorders related to NGPCR function and for the cherapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in clarance claiming and for diagnostic assays and for identifying other cellular gene products related to NGPCR.
                                                                                                                                    Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                          Claim 1; Page 84; 91pp; English.
                                                     WPI; 2001-381634,
P-PSDB; AAE04469
```

C; 447 G; 383 T; 0 other; Sequence 1650 BP; 313 A; 507

ö 240 240 180 300 300 360 360 atgaaggacgaggacaagcccctgacagagtgcgacttcccaagagccttttcgatcc 420 420 540 Gaps 9 9 1 atggogacgccaggggcctgggggcctgctcctgctcctgctcccgacctcaggt atggcgacgcccagggggcctgggggccctgctcctgctcccgacctcaggt gaaggtttgacgcagaaggtgaacacgcctttcctgaaggctttggtccagaacctcagc accaacactgcagaagacttctatttctctctggagccctctcaggttccgaggcaggtg actetetteaagggeeeeeggeteggeetgggagatggeageggegtgttgaacaatege tcctgcaatgtggaaaacttgcagagatactggctaaactacgaggcccatctgatgaag Length 1650; ö 0; Indels 22; DB ; Score 1650; I; Pred. No. 0; 0; Mismatches Query Match
Best Local Similarity 100.0%;
Matches 1650; Conservative 0; 181 H 61 121 121 181 241 241 301 301 361 361 481 421 ö g ö g ò g ŏ g οχ a ŏ g ò g ò a

```
1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ttcaccatcctttacctcccaagtcagagcaccacagtctcctcctctactgcaagattg 1620
                                                                                                                                720
         540
                             9
                                                   900
                                                                                          999
                                                                                                                720
                                                                                                                                                         780
                                                                                                                                                                           780
                                                                                                                                                                                                  840
                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                   960
         actetetteaagggeeeceggeteggeetgggaagatggeageggegtgttgaacaatege
                                                                                                              cggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcc
                                                                                                                                                                                                                                                                                                                                                                                                                         aacagetacggcetetacaceatecgtgatagggagaacegeaeetetetggagetatge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gtcttctctcaccagcgaccgcccctaacatgaccctcacctgtgtattctgggatgtg
                                                                                  gggaccgtgtgctgctgtgaccacctgacctttttcgccctgctcctgagacccaccttg
                                                                                                                                                                                                  gaccagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatg
                                                                                                                                                                                                                                            atcttcctggccttcaccattattctttatgcctttctgaggctttcccgggagaggttc
                                                                                                                                                                                                                                                                                     aagtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaat
                                                                                                                                                                                                                                                                                                         aagtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaat
                                                                                                                                                                                                                                                                                                                             ctggccttcttggtcaatgtgggagtggctcaaagggggtctgatgctgctggtgggcc
                                                                                                                                                                                                                                                                                                                                                                                           cgggggggtgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                         aagctgagcctggtgggctggggcctgcccgccctgatggtcatcggcactgggagtgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aagctgagcctggtggggcctgcccgccctgatggtcatcggcactgggagtgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           toccqtgctacagcggtcaaggagcggggaagaaccggaagaaggagtgctcaccctgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   toccgtgctacaaggagcgggaggaagaagaagaagaagaagaagtgctcacctgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggcctctcgagcctggtggtgtgacatgggggttggccatcttcaccccgttgggcctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ggcctctcgagcctggtgggtgtgacatgggggttggccatcttcaccccgttgggcctc
                                                                                                                                                          gggaccgtgtgctgctgtgaccacctgacctttttcgccctgctcctgagacccaccttg
                                                                                                                                                                                                                                                                                                                                                                                                               ttccacctctacctgctcgctgtcagggtcttcaacacctacttcgggcactacttcctg
tccaccgtctacatctttgcacttttcaactccttgcaaggtgtcttcatctgctgctgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                             541
                                                541
                                                                     601
                                                                                          601
                                                                                                                                  199
                                                                                                                                                                           721
                                                                                                                                                                                                 781
                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1561
                                                                                                                199
                                                                                                                                                       721
                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
        g
                             à
                                               g
                                                                     δ
                                                                                         g
                                                                                                                                qq
                                                                                                                                                       ò
                                                                                                                                                                           g
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                 Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                δy
                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
```

ö

22;

DB

g ò

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΩŸ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \delta \lambda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                            a
                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                            Ωÿ
                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>a</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are transmembrane proteins that span the cellular membrane and area involved in signal transduction after ligand binding. NGPCR). NGPCRs are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene product are useful for identifying compounds that modulate gene products are useful for identifying compounds that modulate gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and for the prognostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for druy screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products.
. 1561 ttcaccatcctttacctcccaagtcagagcaccacagtctcctcctctactgcaagattg 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                present sequence is a cDNA encoding human novel G protein coupled
                                                                                                                                                                                                                                                                                                                                                                                                                       Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel polynucleotides encoding human G protein coupled receptors us for drug screening, diagnosis and in gene therapy of physiological behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2ambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1566 BP; 294 A; 475 C; 439 G; 358 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                        Human novel G-protein coupled receptor (NGPCR) #12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
1..1566
/*tag= a /product= "Human NGPCR protein"
                                                   1621 gaccaggcccactccgcatctcaagaatag 1650
                                                                             1621 gaccaggcccactccgcatctcaagaatag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoville J, Turner CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 73; 91pp; English.
                                                                                                                                                                                                                           BP
                                                                                                                                                                                                                     AAD08769 standard; cDNA; 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0169427
                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB; AAE04459.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-DEC-1999;
                                                                                                                                                                                                                                                                                                                          04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                           AAD08769;
                                                                                                                                                                            RESULT
AAD08769
```

```
atcttcctggccttcaccattattctttatgcctttctgaggctttcccgggagggttc 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aagtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaat 960
                                                                                                                                                                                                                                                                   actaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgag 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                   360
                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                   361 atgaaggacgaggacaagcccctgacagagtgcgacttcccaagagcctttttcgatcc 420
                                                                  caggaaaagcccaccgaagggccaagaaacacctgcctggggagcaacaacatgtacgac 120
                                                                            atetteaaettgaatgacaaggetttgtgetteaecaagtgeaggeagtegggeagegae 180
                                                                                                                   180
                   Gaps
                                   9
                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             actaaaggaccactggagactggtcttctgagggctgctccacggaggtcagacctgag
                                   361 atgaaggacgaggacaagcccctgacagagtgcgacttcccaagagcctttttcgatcc
                                                                                                                                                                                                                                                                                                     actetetteaagggccccggctcggcctgggagatggcagcggcgtgttgaacaatcgc
                                                                                                                                                                                                                                                                                                              accaacactgcagaagacttctatttctctctggagccctctcaggttccgaggcaggtg
                                                                                                                                                                                                                                                                                                                                              ö
    Length 1566;
                                                                                                            Indels
                   ö
            ö
                     Mismatches
    Score 1543;
Pred. No. (
93.5%; Scc.
100.0%; Pre
0; 1
                     Conservative
             Similarity
             Best Local Sim
Matches 1543;
                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                     121
                                                                                                                     121
                                                                                                                                     181
                                                                                                                                                     181
                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                      481
```

```
1440
tggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctc 1320
                                                                                                                                                                                                                                                       ggcctctcgagcctggtgggtgtgacatgggggtttggccatcttcaccccgtttgggcctc 1500
                                                                               aacagetacggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgc 1260
                                                                                                                   toccetgctacagcggtcaaggagcgggggaaccggaagaaggtgctcaccctgctg 1440
                                                                       aagctgagcctggtgggctggggcctgcccgcctgatggtcatcggcactgggagtgcc 1200
                                                                                                                                                               tggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctc 1320
                                                                                                                                                                                                                                                                         1441 ggcctctcgagcctggtgggtgtgacatgggggttggccatcttcaccccgttgggcctc 1500
                                                                                                                                                                                                                                                                                                                                                                                                                              n; novel G-protein coupled receptor; NGPCR; signal transduction; screening; transmembrane protein; mental disorder; gene therapy;
                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                 nootropic; pharmacogenomics; behavioural disorder; ss.
                                                                                                                                                                                                                                                                                           tecacegtetacatetttgcaettttcaacteettgcaaggtg 1543
                                                                                                                                                                                                                                                                                                    .1501 tccaccgtctacatctttgcacttttcaactccttgcaaggtg 1543
                                                                                                                                                                                                                                                                                                                                                                                                             G-protein coupled receptor (NGPCR) #2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /*tag= a
/product= "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1..1527
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Turner
                                                                                                                                                                                                                                                                                                                                                       AAD08759 standard; cDNA; 1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0169427.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-DEC-2000; 2000WO-US33241
                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoville J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200142287-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                           04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                             Human novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                         AAD08759
                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                        1441
                 1021
                                                   1081
                                                                      1141
                                                                                        1141
                                                                                                          1201
                                                                                                                           1201
                                                                                                                                              1261
                                                                                                                                                              1261
                                                                                                                                                                                 1321
                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                         drug
1021
                                   1081
                                                                                                                                                                                                                                                                                                                                      q
                                                Db
                                                                                   QQ
                                                                                                                      Dp
                                                                                                                                                          g
                                                                                                                                                                                              Ωp
                                                                                                                                                                                                             ογ
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                      Ωp
                                                                                                                                                                                                                                                                                         ò
ò
               a
                                                                   ò
                                                                                                     ò
                                                                                                                                         ò
                                                                                                                                                                            ŏ
                                à
```

```
The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the collular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for colludar membrane and assessing gene expression patterns. Sequences accening libraries and assessing gene expression patterns. Sequences acception adjacent to the intron/exon boundaries of NGPCR of gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene cypression or gene product activity. Such compounds are useful in the transment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and for the identification of subjects having a predisposition to such disorders. NGPCR products are also useful for duag screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products.
                          Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121 atottoaacttgaatgacaaggetttgtgcttcaccaagtgcaggcagtcgggcagcgac 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps

    241 gaaggtttgacgcagaaggtgaacacgcctttcctgaaggctttggtccagaacctcagc
    241 gaaggtttgacgcagaaggtgaacacgcctttcctgaaggctttggtccagaacctcagc

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              caggaaaagcccaacgaagggccaagaaacacctgcctgggggagcaacatgtacgac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 atcttcaacttgaatgacaaggetttgtgettcaccaagtgcaggcagtcgggcagcgac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 22; Length 1527;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1527 BP; 295 A; 459 C; 426 G; 347 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88.2%; Score 1454.6; 99.7%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                    Claim 4; Page 62; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
AAE04449.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best_Local Simi
Matches 1457;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

421

421

ò Ω δ g

481

481

480 480

ö

qq

g

Q

qq

δ

q

δý

δý

QQ

g ōλ g δ g ò ga ò g δ g δ g ŏ g δý g δ g à qq

δ

```
The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRS are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening ilbraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful in the expression or gene product activity. Such compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic evaluation of disorders related to NGPCR function and for identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        wovel polynucleotides encoding human G protein coupled receptors usefued drug screening, diagnosis and in gene therapy of physiological or behavioral disorders
                                                            Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnostic assays and for identifying other cellular gene products related to NGPCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 atggcgacgcccaggggcctggggggcctgctcctgctcctgctccgacctcaggt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ë
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1458;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1458 BP; 274 A; 442 C; 410 G; 332 T; 0 other;
Human novel G-protein coupled receptor (NGPCR) #17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                                                                                                                                                                                                          /product= "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1441; DB Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                Location/Qualifiers
1..1458
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Donoho G, Scoville J, Turner CA, Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 5; Page 79; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 87.3%;
Best Local Similarity 99.5%;
Matches 1458; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0169427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (LEXI-) LEXICON GENETICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-381634/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB; AAE04464
                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200142287-A2
                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JUN-2001
                                                                                                                                                                                                                                                                       Key
```

ij

9

XYXX

Wed

```
ŏ
              g
                            g
                                                       q
                                                                            δ
                                   ò
                                         g
                                                δ
                                                                                                                                                                                           240
                                                                                                                                                                                                                                    aagetgageetgggggetgggggectgeeegeeetgatggteateggeaetgggagtgee 1200
                                                                                                                                                                                                                                       aacagctacggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgc 1260
                  240
                        gaaggtttgacgcagaaggtgaacacgcctttcctgaaggctttggtccagaacctcagc 300
                                                                 480
                                                                        480
                           360
                                         420
                                                                               540
                                                                                            600
                                                                                                                                            780
                                                       900
                                                                                                          99
                                                                                                                 9
                                                                                                                       720
                                                                                                                              720
                                                                                                                                     780
                                                                                                                                                   840
                                                                                                                                                          840
                                                                                                                                                                       900
                                                                                                                                                                              960
                                                                                                                                                                900
                                                                                                                                                                                     960
         accaacactgcagaagacttctatttctctggagccctctcaggttccgaggcaggtg
                                                                ctgccaggcaacaggtctgtggtccgcttggccgtcaccattctggacattggtccaggg
                                                                    atgaaggacgaggacaagcccctgacagagtgcgacttcccaagagcctttttcgatcc
                                                                                                                                     gggaccgtgtgctgtgaccacctgaccttttcgccctgctcctgagacccaccttg
                                                                                                                                                  gaccagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatg
181
   121
          181
                       241
                                     301
                                                         361
                                                                       421
                                                                                                         601
                              241
                                           301
                                                   361
                                                                421
                                                                                    481
                                                                                                                                                        781
                                                                                                                601
                                                                                                                             661
                                                                              481
                                                                                                                      661
                                                                                                                                    721
                                                                                                                                           721
                                                                                                                                                  781
                                                                                                                                                                                           961
                                                                                                                                                                                                  961
                                                                                                                                                                                                        1021
                                                                                                                                                                                                               1021
                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                 1201
   g
                                           .
Op
         ò
                g
                       ò
                             g
                                    ò
                                                        g
                                                  ò
                                                                ò
                                                                      d
                                                                              ò
                                                                                  Dp
                                                                                           99
99
                                                                                                              q
                                                                                                                      ò
                                                                                                                           a
                                                                                                                                  ò
                                                                                                                                          g
                                                                                                                                                 ò
                                                                                                                                                      q
                                                                                                                                                               ò
                                                                                                                                                                     g
                                                                                                                                                                             ò
                                                                                                                                                                                  g
                                                                                                                                                                                          ò
                                                                                                                                                                                                qq
                                                                                                                                                                                                       ò
                                                                                                                                                                                                             qq
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                   ò
```

```
Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRS are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the
     aacagctacggcctctacacaccatccgtgatagggagaaccgcacctctctggagctatgc 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
                                                  atcaccttcctctttggcatggtggtcctggccctggtggtctggaagatcttcaccctg
                                                                                                                                                                                                                                                        tcccgtgctacagcggtcaaggagcggggaagaaccggaagaaggtgctcaccctgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human novel G-protein coupled receptor (NGPCR) #7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Friedrich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 67-68; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
1..1515
/*tag= a
/product= "Human NGPG
                                                                                                                                                                                                                                                                                                                                                                                    1434 ggcctctcgagcctggtggtgtga 1458
                                                                                                                                                                                                                                                                                                                                                            ggcctctcgagcctggtgggtgtga 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Turner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; cDNA; 1515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0169427.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoville J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for drug screening, d
behavioral disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-381634/
P-PSDB; AAE04454.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAD08764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAD08764;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
1201
                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                         1441
                                                  1261
                                                                                                 1261
                                                                                                                                                   1321
                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAD08764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
```

```
ij
    and diseases
                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     099
                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                   180
treatment of mental, physiological or behavioural disorders and disea NGFCE DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCE function and for identification of subjects having a predisposition to such disorders. NGPCE DNA sequences are also useful for drug screening and in gene therapy for modulating VGECER expression and to produce genetically engineered host cells to express NGPCE products in vivo. The encoded NGPCER proteins are useful for generating antibodies, as reagents in related to NGPCE.
                                                                                                                                            Gaps
                                                                                                                                                             9
                                                                                                                                                                               9
                                                                                                                                                          actetetteaagggeeeceggeteggeetgggaagatggeageggegtgttgaacaatege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 toctgoaatgtggaaaacttgcagagatactggctaaactacgaggcccatctgatgaag
                                                                                                                                                                                                                                                                                                       gaaggtttgacgcagaaggtgaacacgcctttcctgaaggctttggtccagaacctcagc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 actctcttcaagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gtcttctctcaccagcgaccgcccctaacatgaccctcacctgtgtattctgggatgtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              actaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgag
                                                                                                                                                                                                                                                                                     tcctgcaatgtggaaaacttgcagagatactggctaaactacgaggcccatctgatgaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gaccagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatg
                                                                                                                           Length 1515;
                                                                                                                                            7;
                                                                                                                                            4; Indels
                                                                                                 C; 422 G; 345 T; 0 other;
                                                                                                                          22;
                                                                                                                          DB
                                                                                                                        86.7%; Score 1430.6;
99.2%; Pred. No. 0;
iive 0; Mismatches
                                                                                               Sequence 1515 BP; 289 A; 459
                                                                                                                                            Conservative
                                                                                                                                  Similarity
                                                                                                                                  st_Local Sim
tches 1450;
                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                               61
                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
 8X888888888X8
                                                                                                                                                                             g
                                                                                                                                                                                              ŏ
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                               Db
                                                                                                                                                                                                                                                                                    යු
                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                      οy
                                                                                                                                                                                                                                                                                                                                                                                        Op
                                                                                                                                                                                                                                                                                                                                                                                                                        qq
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Db
                                                                                                                                                            ò
                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                           οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
```

```
1200
                                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                   Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
tcccgtgctacagcggtcaaggagcgggggaagaaccggaagaaggtgctcaccctgctg
                                              ctggccttcttggtcaatgtggggagtggctcaaaggggtctgatgctgctgctggggcc
                                                                                   cggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcc
                                                                                                                                                 ttccacctctacctgctcgctgtcagggtcttcaacacctacttcgggcactacttcctg
                                                                                                                                                                    ttccacctctacctgctcgctgtcagggtcttcaacacctacttcggggcactacttcctg
                                                                                                                                                                                                                          aacagctacggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgc
                                                                                                                                                                                                                                                                tggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctc
                                                                                                                                                                                                                                                                                                    atcaccttcctctttggcatggtggtcctggccctggtggtctggaagatcttcaccctg
                                                                                                                                                                                                                                                                                                                                                          -----ggtgctcaccctgctg
                                                                                                                                                                                       aagctgagcctggtgggctgggggcctgcccgcctgatggtcatcggcactgggagtgcc
                                      aagtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G-protein coupled receptor (NGPCR) #24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein"
                                                                                                                                                                                                                                                                                                                                                          tocogtgotacagoggtcaaggaggggggaagaacc-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Human NGPCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                            BP
                                                                                                                                                                                                                                                                                                                                                                                            1454
                                                                                                                                                                                                                                                                                                                                                                           ggcctctcgagcctggtgggt 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA; 1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-DEC-2000; 2000WO-US33241
                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1..1203
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAD08781
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD08781;
                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                  1081
                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                           1434
                 841
                                                                                                            1021
                                                                                                                              1021
                                                                                                                                                                                     1141
                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                           1441
                                                      901
                                                                        961
                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
841
                                    901
                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Key
                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD08781
                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
              q
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                          Db
                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                         셤
                                                                                                                           g
                                                                                                                                                                QQ
                                                                                                                                                                                                   g
                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                  οŽ
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                          οy
                                    Qγ
                                                                       Ω
                                                                                                            Q
                                                                                                                                                δý
                                                                                                                                                                                    QΥ
                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                      Ω
```

us-09-733-387-43.rng

```
The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the exons are also mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and promote and antibodies are useful for diagnostic and procession of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in claim of diagnostic assays and for identifying other cellular gene products.
                                                                                                                                                                                                                              upled receptors us
of physiological
                                                                                             Ë
                                                                                             Zambrowicz
                                                                                                                                                                                                                              g human G protein coupled
and in gene therapy of ph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1203 BP; 201 A; 384 C; 323 G; 295 T; 0 other;
                                                                                             Friedrich G,
                                                                                                                                                                                                                                                                                                                    Page 87; 91pp; English.
                                                                                           Scoville J, Turner CA,
                                                                                                                                                                                                                                encoding
                                                                                                                                                                                                                                                 for drug screening, diagnosis
behavioral disorders
                                              (LEXI-) LEXICON GENETICS INC
  99US-0169427
                                                                                                                                                                                                                         al polynucleotides drug screening, di
                                                                                                                                                            WPI; 2001-381634/40.
                                                                                                                                                                                    P-PSDB; AAE04471
07-DEC-1999;
                                                                                                                                                                                                                                                                                                                    Disclosure;
                                                                                        Donoho G,
                                                                                                                Sands AT;
                                                                                                                                                                                                                              Novel
```

Gaps 94 482 ctctcttcaagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc cctttcacagggccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc tetteteteaccagegacegececetaacatgaceeteacetgtgtattetgggatgtga ; 0 Length 1203; Indels Score 1161; DB 22; Pred. No. 1.6e-275;); Mismatches 5; 0; 70.48; Query Match 70.4 Best Local Similarity 99.6 Matches 1164; Conservative 542 602 35 95 155 662

à

ö

214 601 661 721 841 394 454 ctaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgagg 722 275 782 335 842 a ô q à g å QQ ò q à a à

1141 1021 1081 1441 1201 1261 1321 1501 tcaccttcctctttggcatggtggtcctggccctggtggtctggaagatcttcaccctgt 1381 961 694 754 814 874 934 994 Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss. tggccttcttggtcaatgtggggagtggctcaaaggggtctgatgctgctgctggtggccc agtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaatc agtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaatc tggccttcttggtcaatgtggggagtggctcaaagggggtctgatgctgctggtgggccc 999999ctgtctccactacttcctgctctgtgccttcacctggatgggccttgaagcct ggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct 1202 acagetacggcetetacaccatecgtgatagggagaaccgcacetetetggagetatget ggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctca gcctctcgagcctggtgggtgtgacatgggggttggccatcttcaccccgttgggccttt 995 gcctctcgagcctggtggtgtgacatgggggttggccatcttcaccccgttgggcctct ccaccgtctacatctttgcacttttcaactccttgcaaggtgtcttcatctgctgctggt 1562 tcaccatcctttacctcccaagtcagagcaccacagtctcctcctctactgcaagattgg Human novel G-protein coupled receptor (NGPCR) #14. "Human NGPCR protein" 1175 accaggcccactccgcatctcaagaatag 1203 1622 accaggcccactccgcatctcaagaatag 1650 Location/Qualifiers AAD08771 standard; cDNA; 1119 (first entry) /product= /*tag= sapiens 04-SEP-2001 AAD08771; ^ 515 575 1022 1082 1322 875 902 962 1262 1442 1502 1382 Ното Key AAD08771 RESULT Q 2 g ōλ g ρý g ò 셤 Qγ g Qγ g ò g ò g δ 원 ŏ g g 원 ò ŏ

```
BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAD08780 standard; cDNA; 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD08780;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ω
                                                                                                                                                                                                                                               1022
                                                                                                                                                                                                                                                                              575
                                                                                                                                                                                                                                                                                                               1082
                                                                                                                                                                                                                                                                                                                                              635
                                                                                                                                                                                                                                                                                                                                                                                1142
                                                                                                                                                                                                                                                                                                                                                                                                               695
                                                                                                                                                                                                                                                                                                                                                                                                                                               1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                 335
                                                                              395
                                                                                                                                                                                                             515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               995
                                                                                                               902
                                                                                                                                                                                962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1502
                                               842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
AAD08780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                               ŏ
                                                                             a
                                                                                                             οŽ
                                                                                                                                         g
                                                                                                                                                                                ŏ
                                                                                                                                                                                                             g
                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                           QΩ
                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                         The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene products are useful for identifying compounds that modulate gene treasment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and for the prognession of disorders related to NGPCR function and for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                                              useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           identification of subjects having a predisposition to such disorders. NGFCE DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGFCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products related to NGPCR.
                                                                                                                                                                                                                                                                              polynucleotides encoding human G protein coupled receptors usef
ug screening, diagnosis and in gene therapy of physiological or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    accaytecaeggtgeatatecteaeaegeateteeeaggegggetgtgggggteteeatga 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            35. ccctttcacagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ctctcttcaagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tcttctctcaccagcgaccgcccctaacatgaccctcacctgtgtattctgggatgtga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tetteteteaceagegacegececetaacatgacecteacetgtgtattetgggatgtga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ggaccgtgtgctgctgtgaccacctgaccttttcgccctgctcctgagacccaccttgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ggaccgtgtgctgtgaccacctgacctttttcgccctgctcctgagacccaccttgg
                                                                                                                                                                                Friedrich G, Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1119 BP; 182 A; 352 C; 315 G; 270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1054; DB 22;
Pred. No. 3.2e-249;
0; Mismatches 5;
                                                                                                                                                                                CA,
                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 76; 91pp; English.
                                                                                                                                                                                Turner
                                                                                                                                              (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63.9%;
99.5%;
                                                                              07-DEC-2000; 2000WO-US33241.
                                                                                                               99US-0169427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best_Local Similarity 99.5
Matches 1057; Conservative
                                                                                                                                                                              Scoville J,
                                                                                                                                                                                                                                                                                                               pehavioral disorders -
                                                                                                                                                                                                                              WPI; 2001-381634/40.
                                                                                                                                                                                                                                            P-PSDB; AAE04461
                 WO200142287-A2
                                                                                                             07-DEC-1999;
                                               14-JUN-2001
                                                                                                                                                                                Sonoho G,
                                                                                                                                                                                              Sands AT;
                                                                                                                                                                                                                                                                                               druq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                              Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 722
                                                                                                                                                                                                                                                                                                 for
```

ò a g

ŏ

g

ò

g

ò

δý

```
tecacetetacetgetegetgteagggtetteaacacetacttegggcactactteetga 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                agctgagcctggtgggctggggcctgcccgcctgatggtcatcggcattgggagtgcca 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   acagctacggoctctacaccatccgtgatagggagaaccgcacctctctggagctatgct 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cccgtgctacagcggtcaaggagcgggggaagaaccggaagaagagtgctcacctgctgg 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     geetetegageetggtgggtgtgaeatgggggttggeeatetteaeceegttgggeetet 1054
                                                                                                                                                                                                ggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      teacetteetetttggeatggtggteetggeeetggtggtetggaagatetteaeeetgt 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      geetetegageetggtgggtgtgaeatgggggttggeeatetteaeeeegttgggeetet 1501
                                                                                                                                                                                                                                                                                                                                                                                                                          755 acagetacggeetetacaeceatecgtgatagggagaacegeaectetetggagetatget 814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     994
                                                                                                                          agetgageetggtgggeetgggeetgeeegeeetgatggteateggeaetgggagtgeea 754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
                                                                                             tottcotggccttcaccattattctttatgcctttctgaggctttcccgggagaggttca 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                815 ggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctca
                                                                                                                                                                                                                          cccgtgctacagcggtcaaggagcggggaagaaccggaagaaggtgctcacctgctgg
tcttcctggccttcaccattattctttatgcctttctgaggctttcccgggagaggttca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccaccgtctacatctttgcacttttcaactccttgcaaggtg 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human novel G-protein coupled receptor (NGPCR) #23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag= a
/product= "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
```

tgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggtc 1110

421 1051

gocotgggtggcagcotgttcctcctgaatctggccttcttggtcaatgtggggagtggc 360

```
δ
                                                                                                                                                 g
                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                          δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR produces in vivo. The encoded dispace to make the normal products in vivo. The encoded subject to modulating other cellular gene products in related to more products.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                          ä
                                                                                                                                                                                                                                                                                                                                                                       Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1020 BP; 172 A; 321 C; 271 G; 256 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                   Friedrich G,
                                                                                                                                                                                                                                                                                                                                                           Donoho G, Scoville J, Turner CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 86; 91pp; English.
                                                                                                                                                                                                                                                                                        (LEXI-) LEXICON GENETICS INC
                                                                                                                                              2000WO-US33241.
                                                                                                                                                                                                                     99US-0169427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAE04470.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  related to NGPCR
WO200142287-A2
                                                                                                                                          07-DEC-2000;
                                                                                                                                                                                                                 07-DEC-1999;
                                                                       14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                 Sands AT;
NAME OF THE PARTY OF THE PARTY
```

```
ö
                                             631 atgaccctcacctgtgtattctgggatgtgactaaagggaccactggagactggtcttct 690
                                                                                                                                       Gaps
                             ;
61.8%; Score 1020; DB 22; Length 1020; 100.0%; Pred. No. 7e-241; ive 0; Mismatches 0; Indels 0;
      Best Local Similarity 100.
Matches 1020; Conservative
 Query Match
                                             691
                                                       61
                                                                   751
                                                                              121
                                                                                                     181
                                                                                                                            241
                                                                                          811
                                                                                                                 871
                                                                                                                                       931
                                 g
                                            à
                                                      g
                                                                              g
                                                                                                    g
                                                                  ò
                                                                                         ογ
                                                                                                                õ
                                                                                                                            a
                                                                                                                                       ò
```

```
1170
                                                                   1171 gccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat 1230
                                                                                                             1290
                                                                                                                                                      1350
                                                                                                                                                                                              1410
                                                                                                                                                                                                                                      1470
                                                                                                                                                                                                                                                                             1530
                                                                                                                                                                                                                                                                                                                    tccttgcaaggtgtcttcatctgctgctggttcaccatcctttacctcccaagtcagagc 1590
                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                         720
                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
                                                                                                           ttcaacacctacttcgggcactacttcctgaagctgagcctggtgggctgggcctgccc
                                      541 gecetgatggtcateggcactgggagtgccaacagctacggcctctacaccatecgtgat
                                                                                                                                                                                           1351 gecetggtggtetggaagatetteaecetgteeegtgetacageggteaaggageggg
                                                                                                                                                                                                        aagaaccggaagaaggtgctcaccctgctgggcctctcgagcctggtggggtgtgacatgg
                                                                                                                                                                                                                                              901 tectigeaaggigieticateigeigeiggiteaceateetitaeeteecaagieagage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human novel G-protein coupled receptor (NGPCR) #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= a
/product= "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                   BP
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAD08761 standard; cDNA; 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD08761;
                                                                                                                                                                                                                                                                                                                                                                                                              σ
                             1111
                                                                                                           1231
                                                                                                                                                   1291
                                                                                                                                                                                                                                    1411
                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                            1471
                                                                                                                                                                                                                                                                                                                    1531
                                                                                                                                                                                                                                                                                                                                                            1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                              RESULT
AAD08761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Key
```

```
07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD08776;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
                                                                                                                                                                                                                                                                                                                                                        1322
                                                                                                         1022
                                                                                                                                                                                                        1142
                                                                                                                                                                                                                                                                                                                                                                                                       1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                               q
                                                                           g
                                                                                                                               Dp
                                                                                                                                                                             g
                                                                                                                                                                                                       δ
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                음
                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                         δy
                                                                                                        δ
                                                                                                                                                       δý
          δ
                                                                                                                                                                                                                                                                          detect mutations within the exons, splice sites, introns that can be used to design primars for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. MORCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. MORCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the prognostic evaluation of subjects having a predisposition to such disorders. MORCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically congineered host cells to express NGPCR products in vivo. The encoded diagnostic assays and for identifying other cellular gene products in diagnostic assays and for identifying other cellular gene products.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                               Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                       The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ctctctcaagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ccctttcacagggcccccggctcggccttgggagatggcagcggcgtgttgaacaatcgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tcttctctcaccagcgaccgcccctaacatgaccctcacctgtgtattctgggatgtga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ctaaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              accagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    accagtccacggtgcatatcctcacacgcatctcccaggcgggttggggtctccatga
                                                          В;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1080;
                                                          Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1080 BP; 183 A; 336 C; 302 G; 259 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                         Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 965.6; DB 27
Pred. No. 1.7e-227;
0; Mismatches 9;
                                                         Turner CA,
                                                                                                                                                                                Disclosure; Page 65; 91pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 58.5%; (99.1%; !
                                 (LEXI-) LEXICON GENETICS INC
          99US-0169427.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          971; Conservative
                                                         Scoville J,
                                                                                           WPI; 2001-381634/40.
P-PSDB; AAE04451.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 971; Conserv
          07-DEC-1999;
                                                        Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dp
ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
1441
                                                                                                                                                                                                          1141
                                                                                                                                   1081
                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                               1202 acagctacggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgct 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tcacettectetttggcatggtggteetggeeetggtggtetggaagatetteaeeetgt 1381
                                                                                                  574
                                                                                                                                                                                                                                           694
                                                                                                                                                                                                                                                                                                              754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
961
cccgtgctacagcggtcaaggagcgggggaagaaccggaagaaggtgctcaccctgctgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct
                                                                                                                                                                         575 ggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct
                                                                                                                                                                                                                                                                                 agetgageetgggtggggeetgeeegeeetgatggteateggeaetgggagtgeea
                                                                                                                                                                                                                                                                                                                                                                                                                        1262 ggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctca
                                                                                                                                                       Human novel G-protein coupled receptor (NGPCR) #19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= a
/product= "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
1..1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        995 gcctctcgagccttgcaagt 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1442 gcctctcgagcctggtgggt 1461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAD08776 standard; cDNA; 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-DEC-2000; 2000WO-US33241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0169427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200142287-A2
```

tggccttcttggtcaatgtggggagtggctcaaaggggtctgatgctgctgctggggccc ggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct

962

g

1022

```
The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR but sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene weed in diagnostics and pharmacogenomics. NGPCR sequences and/or gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically and any any and any any any and any and any any and any and any any any any and any any and any any any any any any any any and any any any any any any any any any
                                                                                                                                                                                                                               useful
                                                                                                                                                                                                                   as encoding human G protein coupled receptors usefundiagnosis and in gene therapy of physiological or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products related to NGPCR.
           Zambrowicz
       Friedrich G,
                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 81-82; 91pp; English.
       Turner CA,
   Scoville J,
                                                                                                                                                                                                            polynucleotides
                                                                                                                                                                                                                                                     for drug screening, d
behavioral disorders
                                                                                                        2001-381634/40
                                                                                                                                             P-PSDB; AAE04466
Donoho G,
Sands AT;
                                                                                                                                                                                                                   Novel
```

541 601 661 721 274 781 841 394 901 961 454 Gaps 94 agicagaagaigcoccaaagaiccacgiggoccigggiggoagccigitcciccigaaic ctctcttcaagggcccccggctcggcctgggagatggcagcggcgtgttgaacaatcgcc tcttctctcaccagcgaccgcccctaacatgaccctcacctgtgtattctgggatgtga accagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatga ctaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgagg ggaccgtgtgctgctgtgaccacctgacctttttcgccctgctcctgagacccaccttgg accagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatga Length 1011; 5; Indels Score 952; DB 22; Pred. No. 3.6e-224; 0; Mismatches 5; 57.78; 98.88; 972; Conservative Best Local Similarity Matches 972; Conserv Query Match 482 542 35 155 95 602 662 722 335 842 395 902 ð g õ qq ò QQ ò g ò g ò g ò g ò

455

```
1321
                                                                                                                                                                                cccgtgctacagcggtcaaggagcgggggaagaaccggaagaaggtgctcaccctgctgg 1441
                                                                                                                                                  toacettectetttggcatggtggtectggecetggtggtetggaagatetteaecetgt 1381
                                                     987
                                                                                                                                                                                                                                                                                                                                 Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
ggttccgtgaagggacaaccatgtacgcctctatatcaccgtccacggctacttcctca
                                                                                                                          Zambrowicz
                                                                                                                                                                                                                                                                                                                   Human novel G-protein coupled receptor (NGPCR) #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                        /product= "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1..1068
/*tag= a
                                                                                                                                                                                                              gcctctcgagcctggtgggtgtga 1465
                                                                                                                                                                                                                             988 gcctctcgagcctggtgggtgtga 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Turner CA,
                                                                                                                                                                                                                                                                      BP
                                                                                                                                                                                                                                                                   AAD08766 standard; cDNA; 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (LEXI-) LEXICON GENETICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-DEC-2000; 2000WO-US33241
                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoville J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-381634/40.
P-PSDB; AAE04456.
                                                                                                                                                                                                                                                                                                                                                                                                                        WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-DEC-1999;
                                                                                                                                                                                                                                                                                                   04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                       14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                   AAD08766;
                                                                                                                                                                                                                                                     Ξ
                      1082
                                                                                   1202
                                                                                                                                815
                                                                                                                                                                               1382
                                                                                                                                                                                               935
      575
                                     635
                                                     1142
                                                                    695
                                                                                                 755
                                                                                                                 1262
                                                                                                                                                1322
                                                                                                                                                                                                              1442
                                                                                                                                                                                                                                                                                                                                                                                  Key
                                    g
                                                                  d
    g
                     Qγ
                                                     δ
                                                                                   ò
                                                                                                g
                                                                                                                QΥ
                                                                                                                               a
                                                                                                                                                ò
                                                                                                                                                              g
                                                                                                                                                                               ò
                                                                                                                                                                                              g
                                                                                                                                                                                                              ð
                                                                                                                                                                                                                           g
```

ij

Sequence 1011 BP; 162 A; 319 C; 286 G; 244 T; 0 other;

```
The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the receptor (NGPCR). NGPCRs are transmembrane proteins that span the receptor (NGPCR). NGPCRs are transmembrane proteins that span the binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/corn boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for dry screening and in gene therapy for modulating NGPCR expression and to produce genetically no produce serving a predisposition to such disorders considered how to eller and product sin vivo. The encoded nor washed to product sin vivo. The encoded nor product and products in vivo. The encoded nor product and products in vivo. The encoded considerating antibodies, as reagents in the products and products in vivo. The encoded diagnostic and products and products in vivo. The encoded diagnostic an
                                    polynucleotides encoding human G protein coupled receptors useful ug screening, diagnosis and in gene therapy of physiological or
                                                                                                                                                                                                 Page 70; 91pp; English.
                                                                                                              behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               related to NGPCR
                                                                                                                                                                                                 Disclosure;
                                                                                  drug
                                         Nove]
```

Gaps Length 1068; 7; Indels DB 22; Score 941.6; DB 22; Pred. No. 1.3e-221; 0; Mismatches 9; 57.1%; ilarity 98.4%; Conservative Similarity Query Match Best Local Simi Matches 964; 482 542 95

Sequence 1068 BP; 177 A; 336 C; 298 G; 257 T; 0 other;

```
1;
                                                                                                                                                                                                                                                                                                                       1022 gggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct 1081
                                                                                                                                                                                                                                                               454
                                                                                                                               721
                                                                                                                                                  274
                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                           ctetetteaagggeeeeeggeteggeetgggagatggeagegggggtgttgaacaategee 541
                                                       601
                                                                                           661
                                                                                                                                                                                                                           accagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatga 394
                                                                         agtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaatc
                                                                                                                                                                                                                                                                                                                                         tggccttcttggtcaatgtggggagtggctcaaagggggtctgatgctgctggtgggccc
                                                                                                                                                                                                                                            accagtccacggtgcatatcctcacacgcatctcccaggcgggctgtggggtctccatga
                                                                                           tetteteteaccagegacegececetaacatgaceeteacetgtgtattetgggatgtga
                                                                                                     ctaaagggaccactggagactggtcttctgagggctgctccacggaggtcagacctgagg
                                                                                                                                         275
                                                                                                                                                                                                                          335
                                                                                          602
                                                                                                             155
                                                                                                                               662
                                                                                                                                                  215
                                                                                                                                                                     722
                                                                                                                                                                                                                                             842
                                                                                                                                                                                                                                                               395
                                                                                                                                                                                                                                                                                  902
                                                                                                                                                                                                                                                                                                    455
                                                                                                                                                                                                                                                                                                                       962
                                                                                                                                                                                                        782
                                    a
                                                                                                                                                                                     8
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                       ŏ
                 ŏ
                                                                                                          8
                                                                                                                                              g
                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                            QΥ
                                                                                                                                                                                                                                                                                  ð
                                                       à
                                                                       셤
                                                                                         ð
                                                                                                                              δŽ
                                                                                                                                                                                                        δ
```

```
Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                            1261
                                                                                                                                                                                               ggtteegtgaagggacaaccatgtaegeeetetatateaeegteeaeggetaetteetea 1321
                                                                                                                                                                                                                                                  teacetteetetttggeatggtggteetggeeetggtggtetggaagatetteaceetgt 1381
                                                                                                                                                                                                                                                                                                    cccgtgctacagcggtcaaggagcgggggaagaaccggaagaaggaggtgctcaccctgctgg 1441
                                                                                                                695 agetgageetggtggggettggggeetgecegeettgatggteateggeaetgggagtgeea 754
                                                                                                                                                                                                            755 acagctacggcctctacaccatccgtgatagggagaaccgcacctcttggagctatgct 814
                                                                                                                                                                                                                                                                                                                             cccgtgctacagcggtcaaggagcgggggaagaacc----ggtgctcaccctgctgg 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
                                                               635 tecacetetacetgetegetgteagggtetteaacacetacttegggeactactteetga 694
                                                                                          agctgagcctggtgggctggggcctgcccgccctgatggtcatcggcactgggagtgcca
                                     tocacctctacctgctcgctgtcagggtcttcaacacctacttcgggcactacttcctga
                                                                                                                                              acagctacggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human novel G-protein coupled receptor (NGPCR) #13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /product- "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoville J, Turner
                                                                                                                                                                                                                                                                                                                                                        1442 gcctctcgagcctggtgggt 1461
                                                                                                                                                                                                                                                                                                                                                                                988 gcctctcgagccttgcaagt 1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (LEXI-) LEXICON GENETICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD08770 standard; cDNA; 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-DEC-2000; 2000WO-US33241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99US-0169427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1..936
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-381634/40.
P-PSDB; AAE04460.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAD08770;
                                                                                          1142
                                                                                                                                                                                                                                                                                                                             935
                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 12
                                       1082
                                                                                                                                              1202
                                                                                                                                                                                                1262
                                                                                                                                                                                                                                                  1322
                                                                                                                                                                                                                                                                                                     1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                 AAD08770
                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                               g
                                                                                                             g
                                                                                                                                           QΥ
                                                                                                                                                                     qq
                                                                                                                                                                                                                      οp
                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                          δŏ
                                                                                                                                                                                               QΥ
```

Page 14

601

```
engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products
Disclosure, Page 75; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      related to NGPCR.
\overset{\mathsf{M}}{\times} \overset{\mathsf{M}}{\circ} \overset{\mathsf{M}}{\overset
```

Sequence 936 BP; 153 A; 289 C; 263 G; 231 T; 0 other;

```
;
0
                                                                                                                                                                                                                                                    tgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggtc 1110
                                                                                                                                                                                                                                                                                                                       agggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacgcc 1290
                                                                                                                                                 870
                                                                          240
                                                                                                                                                                                         gcctttctgaggctttcccgggagaggttcaagtcagaagatgccccaaagatccacgtg 930
                                                            9
                                       631 atgaccetcacetgtgtattetgggatgtgactaaagggaceaetggagactggtettet
                                                                                                                                                        1 atgaccctcacctgtgtattctgggatgtgactaaagggaccactggagactggtcttct
                                                                                                                                               atctcccaggcgggctgtggggtctccatgatcttcctggccttcaccattattctttat
                                                                                                            ttttcgccctgctcctgagacccaccttggaccagtccacggtgcatatcctcacacgc
                                                                                                                                                                                                                                                                                                                                                                    gccctgatggtcatcggcactgggagtgccaacagctacggcctctacacccatccgtgat
                         ö
         Length 936;
                         0; Indels
       Score 913; DB 22; I
Pred. No. 1.3e-214;
                         Mismatches
55.3%; Scc.
100.0%; Pred
0; N
      Query Match 55.3
Best Local Similarity 100.
Matches 913; Conservative
                                                                          691
                                                                                            61
                                                                                                            751
                                                                                                                                              811
                                                                                                                                                               181
                                                                                                                                                                                                                                                    991
                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                      1051
                                                                                                                                                                                                                                                                                                                        1111
                                                                                                                                                                                                                                                                                                                                                         1171
                                                                                                                                                                                                                                                                                                                                                                                            1231
                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                         481
                                                                         ò
                                         ò
                                                        a
                                                                                          엄
                                                                                                           ò
                                                                                                                            g
                                                                                                                                              å
                                                                                                                                                           g
                                                                                                                                                                                ò
                                                                                                                                                                                                g
                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                           g
```

```
The present sequence is a cDNA encoding human novel G protein coupled receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to
agggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacgcc 660
                                                                                                                                                                                                                                                                                                                                                                                                              Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel polynucleotides encoding human G protein coupled receptors us for drug screening, diagnosis and in gene therapy of physiological behavioral disorders -
                      gggttggccatcttcacccgttgggcctctccaccgtctacatctttgcacttttcaac
                                                                                                                                                                                    gecetiggtiggtetiggaagatetteaceetgteeegtgetacageggteaaggageggggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                                                                       Human novel G-protein coupled receptor (NGPCR) #3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /*tag= a
/product= "Human NGPCR protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoville J, Turner CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Page 64; 91pp; English.
                                                                                                                                                                                                                                                                                                               BP
                                                                                                                                                                                                                                                                                                            AAD08760 standard; cDNA; 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (LEXI-) LEXICON GENETICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-DEC-2000; 2000WO-US33241
                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                         tecttgeaaggtg 1543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /*tag=
                                                                                                                                                                                                                                               901 tecttgeaaggtg 913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-381634/40.
P-PSDB; AAE04450.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200142287-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                               04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-JUN-2001
                                                                                                                                                                                                                                                                                                                                      AAD08760;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Donoho G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sands AT;
                                                                                                                                                                                                                                                                                      13
                                                                                              721
                      1291
                                                                     1351
                                                                                                                      1411
                                                                                                                                                                                                                       1531
                                             661
                                                                                                                                                                       1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Key
                                                                                                                                                                                                                                                                                                   AAD08760
                                                                                                                                                                                                                                                                                                              à
                                             a
                                                                   ò
                                                                                            qq
                                                                                                                      ŏ
                                                                                                                                             g
                                                                                                                                                                       ò
                                                                                                                                                                                              g
                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                               g
```

```
detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene inferrance for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products
                                                                                                                                                                                                                                                                                                                                                                                                               related to NGPCR.
```

Sequence 897 BP; 154 A; 273 C; 250 G; 220 T; 0 other;

```
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1410
                                                                                                                                                                                                                                                                                                                                                                                                                  tgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggtc 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1170
                                                                                                                                                                                                                                                                                                                                                                tcaaaggggtctgatgctgctgctgggggccggggggctgtcttccactacttcctgctc 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                             990
                                                                                                                                                                                                                                                                                                                          gagggctgctccacggaggtcagacctgaggggaccgtgtgctgctgtgaccacctgacc 120
                                                   631 atgaccetcacetgtgtattetgggatgtgactaaagggaccactggagactggtettet 690
                                                                                                      Gaps
                                                                             9
                                                                  geoctgggtggcagcetgtteeteetgaatetggeettettggteaatgtgggagtgge
                                                                                                                                                                                                                                                                                                                                                                                                                                ttcaacacctacttcgggcactacttcctgaagctgagcctggtgggctggggcctgccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gccctgatggtcatcggcactgggagtgccaacacagctacggcctctacaccatccgtgat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gooctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          agggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601 agggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ctctatatcaccgtccacggctacttcctcatcaccttcctctttggcatggtggtcctg
                                                                                                                                                       751 tttttcgccctgctcctgagacccaccttggaccagtccacggtgcatatcctcacacgc
                                                                                                                                                                                                         .811 atctcccaggcgggctgtggggtctccatgatcttcctggccttcaccattattctttat
                                                                                                                                                                                                                                   181 atctcccaggcgggctgtggggtctccatgatcttcctggccttcaccattattctttat
                                                                                                                                                                                                                                                            gcctttctgaggctttcccgggagaggttcaagtcagaagatgccccaaagatccacgtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ctctatatcaccgtccacggctacttcctcatcaccttcctctttggcatggtggtcctg
                           0;
Length 897;
                           Indels
 Score 824.6; DB 22;
Pred. No. 7.1e-193;
                           0; Mismatches
Query Match 50.0%;
Best Local Similarity 99.5%;
Matches 827; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1171
                                                                                                                                                                                                                                                                                                                                                                                                                 1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                               991
                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1351
                                                                                                     691
                                                                                                                                                                                                                                                                                                             931
                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                             g
                                                                                                                                                       ŏ
                                                                                                                                                                               ద
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                               Qγ
                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δλ
                                                                                                     ò
```

```
wover polynuclectides encoding human G protein coupled receptors usefu
for drug screening, diagnosis and in gene therapy of physiological or
behavioral disorders
                                                                                                                      Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder; ss.
Zambrowicz
                                                                                                       Human novel G-protein coupled receptor (NGPCR) #18.
                                                                                                                                                                                                                                                                                           Donoho G, Scoville J, Turner CA, Friedrich G,
Sands AT;
                                                                                                                                                                                      /*tag= a
/product= "Human NGPCR protein"
                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 80; 91pp; English.
                                                        BP
                                                       AAD08775 standard; cDNA; 828
                                                                                                                                                                                                                                                             99US-0169427.
                                                                                                                                                                                                                                                                            (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                              07-DEC-2000; 2000WO-US33241.
                                                                                        (first entry)
                                                                                                                                                                               1..828
                                                                                                                                                                                                                                                                                                                    2001-381634/40.
                                                                                                                                                                                                                                                                                                                             P-PSDB; AAE04465
                                                                                                                                                                                                              WO200142287-A2
                                                                                                                                                        sapiens.
                                                                                                                                                                                                                                                             07-DEC-1999;
                                                                                        04-SEP-2001
                                                                                                                                                                                                                              14-JUN-2001
                                                                        AAD08775;
                                                                                                                                                       Homo
                                                                                                                                                                       Key
                g
```

Creening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to gene can be used to design primers for use in amplification assays to used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and compounds are useful for identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products receptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for present sequence is a cDNA encoding human novel G protein coupled related to NGPCR

Sequence 828 BP; 133 A; 256 C; 234 G; 205 T; 0 other;

721

us-09-733-387-43.rng

```
ï
                                                                                                                                                                                                                  1050
                                                                                                                                                                                                                                            1170
                                                                                                                                                                                                                                                                                                        gocotgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat 1230
                                                                                                                                                                                                                                                                                                                                     agggagaaccgcacctctcggagctatgctggttccgtgaagggacaaccatgtacgcc 1290
                                                                                                                                                                                                                                                                                                                                                                 1410
                                                          240
                                                                                                                                                       930
                                                                                                                                                                                 atgaccctcacctgtgtattctgggatgtgactaaagggaccactggagactggtcttct 690
                                                                                                                      atctcccaggogggctgtggggtctccatgatcttcctggccttcaccattattctttat 870
                                                                                                                                                                     300
                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                      gccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat 600
                                                                                                                                                                                                                                                                                                                                                     099
                                                                                                                                                                                                                                                                                                                                                                                                                 780
                 Gaps
                                          1 atgaccetcacetgtgtattetgggatgtgactaaagggaccactggagactggtettet 60
                                                                                                                              tcaaaggggtctgatgctgctggtgggcccggggggctgtcttccactacttcctgctc
                                                                                                                                                                                                                                                                         ttcaacacctacttcgggcactacttcctgaagctgagcctggtgggctggggcctgccc
                                                                                                                                                                                                                                                                                                                                             aagaaccggaagaaggtgctcaccctgctgggcctctcgagcctgtgggggtgtga 1465
|||||||||
|aagaacc----ggtgctcaccctgctgggcctctcgagcctggtgggtgtga 828
                 ′;
  828;
               Indels
 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human novel G-protein coupled receptor (NGPCR) #8.
Score 811; DB 22;
Pred. No. 1.5e-189;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP
49.28;
99.28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD08765 standard; cDNA; 885
     Local Similaricy for the servative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD08765
       Best Loca
Matches
                                                                                                       121
                                                                                                                      811
                                                                         61
                                                                                        751
                                                                                                                                     181
                                                          691
                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                         1111
                                                                                                                                                                                 931
                                                                                                                                                                                                301
                                                                                                                                                                                                               991
                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                       1171
                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                    1231
                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                  1291
                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                1351
                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD08765
                                          g
                                                         ò
                                                                       Op
                                                                                        ò
                                                                                                     g
                                                                                                                    ò
                                                                                                                                   g
                                                                                                                                                   õ
                                                                                                                                                                 qq
                                                                                                                                                                                ò
                                                                                                                                                                                              a
                                                                                                                                                                                                              à
                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                     δý
                                                                                                                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                               δy
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         XX DX DX XX
```

```
Treeptor (NGPCR). NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences of errived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders.

NGPCR DNA sequences are also useful for drug screening and in gene therefore the produce geneficially a predisposition or produce geneficially a predisposition and in gene the produce geneficially a predisposition and in gene and a produce geneficially a predisposition and in gene and a produce geneficially programment and a produce geneficially and a produced are also useful for produce geneficially and a produced are also useful for produce geneficially and a produced are also useful for produce geneficially and an analyse and a produced are also useful for produce geneficially and an analyse and a produced are also useful for produce geneficially and an analyse and a produced and a produced and a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 j human G protein coupled receptors useful and in gene therapy of physiological or
       drug screening; transmembrane protein; mental disorder; gene therapy;
nootropic; pharmacogenomics; behavioural disorder; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     present sequence is a cDNA encoding human novel G protein coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            631 atgaccetcacetgtgtattetgggatgtgactaaagggaccactggagactggtettet 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gagggctgctccacggaggtcagacctgaggggaccgtgtgctgctgtgaccacctgacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tttttcgccctgctcctgagacccaccttggaccagtccacggtgcatatcctcacacgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 885;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 885 BP; 148 A; 273 C; 246 G; 218 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 800.6; DB 22;
Pred. No. 5.6e-187;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Friedrich G,
                                                                                                                                                                                   /product= "Human NGPCR protein'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA,
                                                                                                                   ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Turner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   polynucleotides encoding
                                                                                                                                                                                                                                                                                                                                                                                                                (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       48.58;
98.78;
                                                                                                                                                                                                                                                                                                                       07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                   99US-0169427.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 69; 91pp;
                                                                                                                                                                ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 48.5
Best Local Similarity 98.7
Matches 820; Conservative
                                                                                                                                      1..885
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoville J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for drug screening, d
behavioral disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P-PSDB; AAE04455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           related to NGPCR.
                                                                                                                                                                                                                             40200142287-A2
                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                   07-DEC-1999;
                                                                                                                                                                                                                                                                          14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel
                                                                      Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           751
                                                                                                                 Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
```

ij

Human; novel G-protein coupled receptor; NGPCR; signal transduction;

```
1230
                                                                                                            1290
                                                                                                                            009
                                                                                                                    999
                               240
                       300
                                                                                                             gccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat
                                                                                                     541 gecetgatggteateggeactgggagtgecaacagetacggeetctacaccatcegtgat
                                                                                                                                                            aagaaccygaagaaggtgctcaccctgctgggcctctcgagcctggtgggt 1461
||||||||
|aagaacc-----gytgctcaccctgctgggcctctcgagccttgcaagt 824
                                                                                                                                                          1411
                       241
                                       301
                                                              1051
                                                                      421
                                                                              1111
                                                                                     481
                                                                                             1171
                                                                                                             1231
                                                                                                                             1291
                                                                                                                                    661
                                                                                                                                            1351
                                                                                                                                                                    781
                871
                                               991
                                                      361
                               931
                                                                                                                                    a
                                                                                                                                                    q
                                                                                                    ρp
                                                                                                                   qq
                                                                                                                                                            ŏ
                                                                   g &
                                                                                   qq
                                                                                           δy
                                                                                                           δy
                                                                                                                            QΥ
                                                                                                                                             ρý
      Q
                      Ω
                            ργ
                                             Oy
Oy
 δλ
             Q
```

Search completed: June 11, 2002, 21:31:16 Job time: 4275 sec

						6			
					- ·				
	÷	ż					·		
						V.			
		• 1							
		•		/t*					
			•					<i>:</i>	
								4	

Appli Appli Appli Appli

Sequence 1 Sequence 3

2, Appli 2, Appli 1, Appli 1, Appli 53, Appl 359, App 2, Appli 3, Appli 7, Appli

Sequence Sequence Sequence Sequence Sequence Sequence

Sequence 2, Appearance 3, Appearance 11, Appearance 11, Appearance 11, Appearance 11, Appearance 13, Appearance

Sequence 13,

Sequence

```
APPLICANT: Lal, Preeti
APPLICANT: Hillman, Jennifer L.
APPLICANT: We, Henry
APPLICANT: Reddy, Roopa
APPLICANT: Guegler, Karl J.
APPLICANT: Baughn, Mariah R.
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF GENES ENCODING
TITLE OF INVENTION: RECEPTORS AND PROTEINS ASSOCIATED WITH CELL PROLIFERATION
NUMBER OF SEQUENCES: 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/276,531
US-07-864-475A-1

US-08-468-249A-1

US-07-864-475A-2

US-08-468-249A-2

US-08-513-974B-53

US-08-513-974B-53

US-08-513-974B-359

US-08-513-974B-359

US-08-131-974B-359

US-08-475-742-3

US-08-475-742-3

US-08-475-742-3

US-08-477-306-11

US-08-861-464-13

US-08-377-306-11

US-08-361-323-43A-13

US-08-361-323-43A-13

US-08-356-322-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSEE: INCYTE PHARMACEUTICALS, INC
:: 3174 PORTER DRIVE
PALO ALTO
CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PA-0008 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 78, Application US/09276531
Patent No. 6183968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE/DOCKET NUMBER: PR-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 845-4166
INFORMATION FOR SEQ ID NO: 78:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Lynn E. Murry, Ph.D.
REGISTRATION NUMBER: 42,918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/079,
FILING DATE: March 27, 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 3090 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bandman, Olga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Herewith
       1862
1863
1863
1863
3271
756
810
1161
1161
1367
390
5698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIBRARY: BRAINOT14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Patent No. 6183968
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IMMEDIATE SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
STREET: 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-276-531-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: P
          44444446

.004444446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

.00446

          June 11, 2002, 20:17:59 ; Search time 53.57 Seconds (without alignments) 7565.714 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2, Appli
24, Appl
1, Appli
14, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                          1 atggcgacgcccaggggcct.....actccgcatctcaagaatag 1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 13,
Sequence 7,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1
Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1
Sequence 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
                                       GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-276-531-78

US-09-276-531-125

US-09-132-421-14-2

US-09-130-114-2

US-08-130-114-2

US-08-130-114-2

US-08-130-114-2

US-08-130-114-2

US-08-130-114-2

US-08-130-114-14

US-08-130-14-14

US-08-130-14-14

US-08-130-14-13

US-08-130-130-130

US-08-130-130-130

US-08-130-130-130

US-08-131-057-7

US-08-131-057-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-276-531-107
US-09-320-878-23
US-09-365-150-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -08-440-856A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      383533 seqs, 122816752 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                         sw model
                                                                                                                                                                                                                                                                                                                                                                                               IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Issued_Patents_NA:*
                                                                                                                                            nucleic search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                             US-09-733-387-43
1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7218
10931
12588
115521
11521
11521
11647
11647
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
11865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41.6
40.8
40.6
                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                 OM nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 O
```

```
Query Match 5.2%;
Best Local Similarity 55.9%;
Matches 162; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . 669 base pairs
nucleic acid
EDNESS: single
                                                                                                                                             ZIP: 94304
COMPUTER READABLE FORM:
                               3174 PORTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; LIBRARY: THYRNOT09
; CLONE: 2715440
US-09-276-531-125
                                                                                              CALIFORNIA
                               STREET: 3174 POF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: nucleic STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-232-463-14
                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Lal, Preet!
APPLICANT: Hilman, Jennifer L.
APPLICANT: Yue, Henry
APPLICANT: Reddy, Roopa
APPLICANT: Reddy, Roopa
APPLICANT: Reddy, Rarl J.
APPLICANT: Reddy, Mariah R.
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF GENES ENCODING
TITLE OF INVENTION: RECEPTORS AND PROTEINS ASSOCIATED WITH CELL PROLIFERATION
CORRESPONDENCE ADDRESS:
                                                                                                                                                                               3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              978 ACTICICCIGCICACCIGCCITICCIGGAIGGGCTICGAGGGGTACAACCICIACCGAC 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             917 caaagatccacgtggccctgggtggcagcctgttcctcctgaatctggccttcttggtca 976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         917
                                                                                                                                                                                                                                     515 atggcagcggcgtgttgaacaatcgcctggtgggtttgagtgtgggacaaatgcatgtca 574
                                                                                                                                                                                                                                                                                                                                                                                            ccctcacctgtgtattctgggatgtg-----actaaagggaccactggagactggtctt 688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 798 ccecciacciciacicases de consecuencia de co
                                                                                                                                                                                                                                                                                          438 ATTCCAGCCAAGTCCTGGGTGAGAAGGTCTTGGGGATTGTGGTACAGAACACCAAAGTAG 497
                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       863 ttotttatgcctttctgaggctttcccggggagggttcaagtca-----gaagatgccc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               575 ccaagctggctgagcctctggagatcgtcttctctcaccagcgaccgcccctaacatga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ctgagggetgctccacggaggtcagacctgagggaccgtgctgctgtgaccacctga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cetttttcgccctgctcctgagacccaccttggaccagtccacggtgcata----tcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       918 GCGAGCCGGTGGCCCTGACAGGCTCTGAGGCTGCCGAGCCAGTGCCATCTTCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1037 actacttcctgctctgtgccttcacctggatgggccttgaagccttccacctctacctgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tegetgteagggtetteaacacetacttegggcactactteetgaagetgageetggtgg
                                                                                                                    Length 3090;
                                                                                                                                                                               Indels
                                                                                                                    DB 4;
                                                                                                                                             .3e-27
                                                                                                                 h 8.8%; Score 145.8; Similarity 54.1%; Pred. No. 2.3e72; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1157 gctggggcctgcccgcctgatggtca 1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1098 GCTGGGGCTTCCCCATCTTCTGGTGA 1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 125, Application US/09276531
Patent No. 6183968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Bandman, Olga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
; CLONE: 1595762
US-09-276-531-78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-276-531-125
                                                                                                                                                Best Local Sim
Matches 372;
                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ογ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
```

```
952 etectgaatetggeettettggteaatgtggggagtggeteaaaggggtetgatgetgee 1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1072 cttgaagcettecacetetacetgetegetgteagggtetteaacacetaettegggeae 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tgotgggcccggggggctgtcttccactacttcctgctctgtgccttcacctggatgggc 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196 TGCATTGCTGTTGCAGTCCTGTTGCATTTTTTTTTTACCTGGATGGGG 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      76 GAGAAATIGCGAAGGGATTATCCCTCCAAAATCTTGAIGAACCTGAGCACAGCCCTGCTG 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256 CTAGAAGCAATTCACATGTACATTGCTCTAGTTAAAGTATTTAACACTTACATTCGCCGA 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        892 gagaggitcaagicagaagaigccccaaagaiccacgiggcccigggiggcagccigitc 951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1132 tacttoctgaagctgagcctggtgggctggggcctgccgccctgatggt 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 669;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316 TACATICTAAAATICTGCATCATTGGCTGGGGTTTGCCTGCCTTAGTGGT 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 85.2; DB 4; Length 6 Pred. No. 2.2e-12; 0; Mismatches 128; Indels
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
ODERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/276,531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: DORNER, F.
APPLICANT: SCHEIFLINGER, F.
APPLICANT: FALKNER, F. G.
APPLICE OF INVENTION: RECOMBINANT FOMLPOX VIRUS
NUMBER OF SEQUENCES: 52
                                                                                                                                                                                                                                                                                                                                NAME: LYDIN E. MULTY, Ph.D.
REGISTRATION NUMBER: 42,918
REFERENCE/DOCKET NUMBER: PA-0008 US
TELEPHONE: (650) 855-055
TELEPHONE: (650) 845-4166
INFORMATION FOR SEQ ID NO: 125:
SEQUENCE CHARACTERISTICS:
                                                                                                                ; Sequence 14, Application US/08232463; Patent No. 5670367; GENERAL INFORMATION:
```

```
1510 tacatetttgeaetttteaaeteettgeaaggtgtetteatetgetgetggtteaceate 1569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1030 gicticcactacticctgcictgtgccitcacciggatgggccitgaagccitccaccic 1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1090 tacetgetegetgteagggtetteaacacetacttegggeactactteetgaagetgage 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1150 ctggtgggctggggcctgcccgccctgatggtcatcggcactgggagtgccaacagctac 1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1210 ggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgctggttccgt 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ctetttggcatggtggtcctggccctggtgttggaagatettcaccctgtcccgtgct 1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1450 agcctggtgggtgtgacatgggggttggccatcttcaccccgttgggcctctccaccgtc 1509
                   299 giecteceegiectegiectecteceegiectegiectecteceegiecteeeegiecte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    419 eteccegtectegtectecegtectegtectectectecegtectecegtectegte 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         479 ctecteccegtecteccegtectecegtectegtectectectegtectete 538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           779 eccetectegtectececgtectecegtectectectectectececgtectecegtecte 838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  539 cacqtactacacqtactaqtactacacqtactacacqtactacacqtatata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1390 acagoggtcaaggagcgggggaagaaccggaagaaggtgctcaccctgctgggcctctcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             719 gteetegteeteeeegteetegteeteeegteeteecegteetegteetegteete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1270 gaagggacaaccatgtacgccttctatatcaccgtccacggctacttcctcatcaccttc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                599 eteccegtectegtecteceegtecteceegtecteceegtectegtecteceegtecte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1931;
                                                                                                                                                                                                                                                                                 APPLICANT: Horlick, Robert A.
APPLICANT: Damaj, Bassam B.
APPLICANT: Robbins, Alan K.
TITLE OF INVENTION: Eukaryotic Cells Stably Expressing Genes TITLE OF INVENTION: From Multiple Transfected Episomes FILE REFERENCE: 0867/1D9030S1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches 314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5; DB 2;
0.0052;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 48.6;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/130,114
CURRENT FILING DATE: 1998-08-06
NUMBER OF SEQ ID NOS: 36
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
                                                                                                                                                                                                                        Sequence 2, Application US/09130114 Patent No. 5976807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2.9%;
illarity 43.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1570 ctttacctccc 1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              839 gtcctcctccc 849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 237; Conserv
                                                                                cccgtgct 1389
                                                                                                                      1414 YYYYYYY 1421
                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: EBNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1931
                                                                                                                                                                                                     US-09-130-114-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-130-114-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                  1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏλ
                                          g
                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ggttccgtgaagggacaaccatgtacgccctctatatcaccgtccacggctacttcctca 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1322 tcaccttcctctttggcatggtggtcctggccctggtggtctggaagatcttcaccctgt 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              994 TATTITICCTTCGTTTGCCATACGCTCACAGAATTAATTCCGAGCTTGGCTGCAGGTCGA 1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1082 tecacetetacetgetegetgteagggtetteaacacetaettegggeactaetteetga 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1142 agctgagcctggtgggctggggcctgccgcctgatggtcatcggcactgggagtgcca 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1202 acagctacggcctctacaccatccgtgatagggagaaccgcacctctctggagctatgct 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        902 agtcagaagatgccccaaagatccacgtggccctgggtggcagcctgttcctcctgaatc 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               934 ATTCAAAATATTATTAAACGGTTTACGTTGAAATGTCCCATCGAGTGCGGCTACTATAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ggggggctgtcttccactacttcctgctctgtgccttcacctggatgggccttgaagcct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 3.1%; Score 51.6; DB 1; Length 7218; Best Local Similarity 11.7%; Pred. No. 0.0016; Matches 57; Conservative 211; Mismatches 220; Indels 0
                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 30472/114 IMMU
CORRESPONDENCE ADDRESS:
ADDRESSEE: Foley & Lardner
STRRET: 1800 Diagonal Road, Suite 500
CITY: Alexandria
                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/07/935,313
FILING DATE:
APPLICATION NUMBER: EP 91 114 300.6
                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/232,463
                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 26-AUG-1991
ATTORNEY-AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFRENCE/POCKET NUMBER: 3047;
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 899149
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : 7218 base pairs
nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (703)683-4109
                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; CLONE: pTZgpt-F1s
US-08-232-463-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                           22313-0299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                            USA
                                                                                                     STATE: V. COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ă
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΩD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δλ
```

```
2.8%; Score 45.4; DB 2; Length 12588;
14.2%; Pred. No. 0.071;
Lve 0; Mismatches 236; Indels 0;
                                                                                                                                                                                                                 Sequence 1, Application US/08387942C
Patent No. 5939289
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: BRIESVAG, HELGA
APPLICANT: SKJAK-BRAEK, GUDMUND
APPLICANT: SKJAK-BRAEK, GUDMUND
APPLICANT: LARSEN, BJORN
TITLE OF INVENTION: BNA COMPOUNDS COMPRISING SEQUENCES
TITLE OF INVENTION: ENCODING MANNURONAN C-5-EPIMERASE
NUMBER OF SEQUENCES: 52
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWALE PATENTIN BLOOM #1.30

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/387,942C
FILING DATE: 09-MAY-1995
CLASSIFICATION: 435
ATTONNEY/AGENT INPORMATION:
NAME: MURRHY JR, GEALD M.
REGISTRATION NUMBER: 28,977
REFERENCE/DOCKET NUMBER: 1809-106P
TELECOMMULICATION INFORMATION:
TELEPHONE: 703-205-8000
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: BIRCH, STEWART, KOLASCH & BIRCH, LLP STREET: P.O.BOX 747
CITY: FALLS CHURCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Azotobacter vinelandii
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 703-205-8030
INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 12588 base pairs TYPE: nucleic acid cmbandeDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             44.28;
                                                               1091 acctgctcgctgtca 1105
                                                                                                           586 ACCIGGCCCTIGICA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best_Local Similarity 44.2
Matches 187; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
9973..12588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CDS
6702..9695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN: E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LOCATION:
FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY:
LOCATION:
                                                                                                                                                                                                 US-08-387-942C-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; NAME/KEY:
; LOCATION:
US-08-387-942C-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                  δλ
                                                                                                      임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                             APPLICANT: Lal, Preeti
APPLICANT: Hillman, Jennifer L.
APPLICANT: Yue, Henry
APPLICANT: Reddy, Roopa
APPLICANT: Guegler, Karl J.
APPLICANT: Baughn, Mariah R.
APPLICANT: Bughn, Mariah R.
APPLICANT: AND PROFEINS ASSOCIATED WITH CELL PROLIFERATION UNMBER OF SEQUENCES: 134
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1032 cttccactacttcctgctctgtgccttcacct-ggatgggccttgaagccttccacctct 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 912 tgccccaaagatccacgtggcctggtggcagcctgttcctcctgaatctggcttctt 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466 ccriggacredrigarricererarandarecandececericarereagiecererari 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               852 cttcaccattattctttatgcctttctgaggctttccggggagaggttcaagtcagaaga 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        346 CATCAATTITCTGTCAGTGACTCTTGTAACCTACATAGCTTTTGAATCCGGAGGGATTA 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      406 CCCTTCCAAAATCCTCATCAGCTGTGTGCTCTTGCTTCTGCTGAAAATCCTGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.8%; Score 46.2; DB 4; Length 1027; 31.4%; Pred. No. 0.016; lve 0; Mismatches 123; Indels 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: INCYTE PHARMACEUTICALS, INC
STREET: 3174 PORTER DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/276,531
FILING DATE: Herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFCATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/079,677
FILING DATE: MAICH 27, 1998
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
REJESTRATION NUMBER: 42,918
REJESTRATION NUMBER: 42,918
REFERENCE/DOCKET NUMBER: PA-0008
TELEPHONE: (650) 855-0555
TELEPHONE: (650) 845-4166
INFORMATION FOR SEQ ID NO: 24:
SEQUENCE CHARACTERISTICS:
                                                                           Sequence 24, Application US/09276531
Patent No. 6183968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 2.8%;
Best Local Similarity 51.4%;
Matches 131; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1027 base pairs
                                                                                                                                        APPLICANT: Bandman, Olga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; IMMEDIATE SOURCE:
! LIBRARY: ADENINB01
; CLONE: 158253
US-09-276-531-24
                                                                                                                                                                                                                                                                                                                                                                                                                            PALO ALTO
CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94304
                                                  JS-09-276-531-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
```

```
δý
                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                      1051 tgtgccttcacctggatgggccttgaagccttccacctctacctgctcgctgtcagggtc 1110
                                                                                                                                                                                                                                                                                                                                    1231 agggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacgcc 1290
                                                                                                                                                                                                                                                                                                                                                                                                      tcaaaggggtctgatgctgctgctgggcccgggggggtttcttccactacttcctgctc 1050
                                                                                                                                                       3868 Gecacedadecegesesaacetrecreseradesesesesaaceacereaaceses 3927
                                                                                                                                                                                                                                                               1171 gcctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtgat 1230
                                                                                       3808 AACAACCTGTTGTTCGACGCCGCTCCGGCCACCGGTACCGAGGGCAGCGAACCTGCTC 3867
                                                                                                                                                                                                                 1111 ttcaacacctacttcgggcactacttcctgaagctgagcctggtgggggtggggctgccc
                                                                                                                                                                                                                                                                                     4048 AACCAGGCCGACCGCATTCTCGACTTCGACCCGACCTGGACAGGATCGACGTGTCGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Greenplate, John T.
APPLICANT: Jennings, Michael G.
APPLICANT: Jennings, Michael G.
APPLICANT: Sammons, Robert D.
TITLE OF INVENTION: Method of Controlling Insects
NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Grace L. Bonner, Monsanto Company, E
STREET: 700 Chesterfield Parkway No. 5518908th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 38-21(10631)A
TELEDCOMMUTION: INFORMATION:
TELEPHONE: (314)537-7286
TELEPFAX: (314)537-6047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPUTIBL OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIN RELEASE #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/083,948
FILING DATE: 19930628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/937195
FILING DATE: 09-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/762682
FILING DATE: 23-SEP-1991
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Séquence 14, Application US/08083948
Patent No. 5518908
GENERAL INFORMATION:
APPLICANT: Corbin, David R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32,963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Bonner, Grace L.
REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: St. Louis
STATE: Missouri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 19
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4168 GCC 4170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1351 gcc 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 63198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-083-948-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                   991
                                                   à
                                                                                   g
                                                                                                                οy
                                                                                                                                                원
                                                                                                                                                                                            οy
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                    φ
                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QY
```

```
1109 tetteaacacetaettegggeactaetteetgaagetgageetggtggggetggggeetge 1168
                                                                                                                                                                                                                                                                                                                                                                                                             1169 ccgccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     occtctatatcaccgtccacggctacttcctcatcaccttcctctttggcatggtggtcc 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 905 GCACCCTGCCCGGCCTCAGCTCCGAGATCGGCGGCGGCGCGCCCCAACGGCAACATCA 964
                                                                                                                                                                                                                                                                                                                                                                 1229 atagggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacg
                                                                                                                                                                                                                             Score 43.6; DB 1; Length 1521;
Pred. No. 0.086;
0; Mismatches 149; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1085 TGCCGGCGGCCTCGAGACCTGGGTCAGCCTCTACCTGGCCA 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Corbin, David R.
APPLICANT: Greenplate, John T.
APPLICANT: Jennings, Michael G.
APPLICANT: Purcell, John P.
APPLICANT: Sammons, Robert D.
APPLICANT: Method of Controlling Insects
NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Grace L. Bonner, Monsanto Company, 1
STREET: 700 Chesterfield Parkway No. 5554369th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATE: SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/083,948
FILING DATE: 28-UN-1993
APPLICATION NUMBER: US 07/762682
FILING DATE: 23-SEP-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/393,785
FILING DATE: 24-FEB-1995
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 23-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 14, Application US/08393785
Patent No. 5554369
GENERAL INFORMATION:
                                                                                                                              MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                           2.6%;
ilarity 47.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 09-SEP-1992 ATTORNEY/AGENT INFORMATION:
              SEQUENCE CHARACTERISTICS:
LENGTH: 1521 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Bonner, Grace L.
INFORMATION FOR SEQ ID NO:
                                                                                       single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 133; Conserva
                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            St. Louis
: Missouri
                                                                                  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63198
                                                                                                             TOPOLOGY:
                                                                                                                                                       US-08-083-948-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-393-785-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: S
STATE:
```

us 07/762682

```
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1109 tetteaacacetaettegggeactaetteetgaagetgageetggtggggeetgg 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1169 ccgccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 atagggaggagcccccctctctggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         occtotatatoaccgtocacggotacttoctcatcaccttcctctttggcatggtggtcc 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1025 CCCTCGGCATCGACGACTGGGACAACCCCGACAACCCCGTCTTCGCCGAGATAGCCCCCA 1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       905 GCACCCTGCCCGGCCTCCGAGATCGGCGGCGGGCTGGGCCCCCAACGCAACATCA 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               845 TCTTCCTCGCCCCGGCAGCCTCGGTTGAACTGCTGCTGCGCGCCCCGGGAGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 2.6%; Score 43.6; DB 1; Length 1521; Best Local Similarity 47.2%; Pred. No. 0.086; Matches 133; Conservative 0; Mismatches 149; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 14, Application US/08475694

Patent No. 5558862

GENERAL INFORMATION:
APPLICANT: Corbin, David R.
APPLICANT: Greenplate, John T.
APPLICANT: Jennings, Michael G.
APPLICANT: Sammons, Robert D.
TITLE OF INVENTION: Method of Controlling Insects
NUMBER OF SEQUENCES: 14
CORRESPONDENCES: 14
CORRESPONDENCES: 16
CORRESPONDENCES: 18
CORRESPONDEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1085 TGCCGGCGGGCCTCGAGACCTGGGTCAGCCTCTACCTGGCCA 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PO-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/475,694
FILIG DATE: 07-JUN-1995
CLASSIFICATION: 424
                                 REFERENCE/DOCKET NUMBER: 38-21(10631)A
TELECOMMUNICATION INPORMATION:
TELEPHONE: (314)537-6786
TELEFAX: (314)537-6047
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 1521 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/393,785 TLING DATE: 24-FEB-1995 APPLICATION NUMBER: US 08/083,948 FILING DATE: 28-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 63198
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
REGISTRATION NUMBER: 32,963
                                                                                                                                                                                                                                                                                                                                                                                                                                            ; MOLECULE TYPE: DNA (genomic) US-08-393-785-14
                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   St. Louis: Missouri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-475-694-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STATE: M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
1109 tottcaacacctacttcgggcactacttcctgaagctgagcctggtgggctggggcctgc 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1169 cogcoctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1229 atagggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ccetetatateacegtecaeggetaetteeteateacetteetetttggeatggtggtee 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1025 cccrcegcarceaceacregeacaacccceacaaccccercrreecesagaraececea 1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          905 GCACCCTGCCCGGCCTCAGCTCCGAGATCGGCGGGGGGCGCCCCAACGCCAACGTCA 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          845 TCTTCCTCGGCGCCGCCAGCCTCGGCTCCATTGAACTGCTGCTGCGCGCCCGGGAGACCG 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 2.6%; Score 43.6; DB 1; Length 15
Best Local Similarity 47.2%; Pred. No. 0.086;
Matches 133; Conservative 0; Mismatches 149; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Greenplate, John T.
APPLICANT: Greenplate, John T.
APPLICANT: Purcell, John P.
APPLICANT: Forence of the purcell 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1085 TGCCGGGGGCCTCGAGACCTGGGTCAGCCTCTACCTGGCCA 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PC-DOS/MS-DOS SOFTWARE: PC-DOS/MS-DOS CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/712,057
                                                                                                                                                                                                                                                                                                                                                                                    38-21(10631)A
FILING DATE: 23-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937195
FILING DATE: 09-SEP-1992
ATTORREY/AGENT INFORMATION:
NAME: Bonner, Grace L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 14, Application US/08712057
Patent No. 5763245
                                                                                                                                                                                                                                                                       NAME: Bonner, Grace L.
REGISTRATION UNUBER: 32,963
REFERENCE/DOCKET NUBER: 38-2.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314)537-7286
TELEPRONE: (314)537-7286
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: linear

MOLECULE TYPE: DNA (genomic)

US-08-475-694-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 1521 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
US-08-712-057-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
```

```
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-08-393-785-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1289 ccctctatatcaccgtccacggctacttcctcatcaccttcctctttggcatggtggtcc 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1109 tettcaacacetacttegggcactactteetgaagetgageetggtggggeetge 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1169 ccgccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1229 atagggagaaccgcacctctcggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1025 cccrcegcarceaceaceaceacccceacaaccccearcarccccaaearaecccca 1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . 905 GCACCCTGCCCGGCTCAGCTCCGAGATCGGCGGCGGCTGGGGCCCCAACGGCAACATCA 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              845 retrecrescecescascerescreserreatisacisersecescecessasses 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 43.6; DB 1; Length 1521;
Pred. No. 0.086;
0; Mismatches 149; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Corbin, David R.
APPLICANT: Greenplate, John T.
APPLICANT: Greenplate, John T.
APPLICANT: Johnings, Michael G.
APPLICANT: Purcell, John P.
APPLICANT: Sammons, Robert D.
TITLE OF INVENTION: Method of Controlling Insects
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: Grace L. Bonner, Monsanto Company, BB4F
STREET: 700 Chesterfield Parkway No. 5518908th
CITY: St. Louis
STATE: Missouri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1085 TGCCGGCGGCCTCGAGACCTGGGTCAGCCTCTACCTGGCCA 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                         38-21(10631)A
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/762682
FILING DATE: 23-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937195
FILING DATE: 09-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 13, Application US/08083948
Patent No. 5518908
                                                                                                                                                                                                                                                                                                                             TELEFAX: (314)537-6047
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGHH: 1521 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                               NAME: Bonner, Grace L.
REGIZERATION NUMBER: 32,963
REFERENCE/DOCKET NUMBER: 38
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314)537-7286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic)
US-08-712-057-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 2.6%;
Best Local Similarity 47.2%;
Matches 133; Conservative
                                                                                                                                                                                                                                                                                                        (314)537-7286
(314)537-6047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-08-083-948-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
1031 GCACCCTGCCCGGCCTCAGCTCCGAGATCGGCGGCGCGGCGCCCCAACGGCAACATCA 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1109 tetteaacacetaettegggcaetaetteetgaagetgageetggtgggetggggeetgg 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1169 cegecetgatggteateggeactgggagtgeeaacagetaeggeetetaeaecateegtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1229 atagggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1289 ccctctatatcaccgtccacggctacttcctcatcaccttcctctttggcatggtggtcc 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1151 cccrcgcarcacacacraggacaaccccaaaaccccgrcrrcgccgagaragcccca 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            971 rerrecresececeseaseereserecarreaacrecrecrecreseceseseses 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match 2.6%; Score 43.6; DB 1; Length 1647; Best Local Similarity 47.2%; Pred. No. 0.089; Matches 133; Conservative 0; Mismatches 149; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3: Grace L. Bonner, Monsanto Company, BB4F
700 Chesterfield Parkway No. 5554369th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1211 recegeegeerecagaceregereacereraceregeer 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Corbin, David R.
APPLICANT: Greenplate, John T.
APPLICANT: Jennings, Michael G.
APPLICANT: Purcell, John P.
APPLICANT: Sammons, Robert D.
TITLE OF INVENTION: Method of Controlling Insects
WINBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                             32,963
ER: 38-21(10631)A
APPLICATION: 800
PRIOR APPLICATION: 800
PRIOR APPLICATION BADA: 800
PRIOR APPLICATION NOMBER: 08 07/762682
FILING DATE: 23-5EP-1991
PRIOR APPLICATION NOMBER: 08 07/762682
FILING DATE: 09-5EP-1992
APPLICATION NOMBER: 08 07/937195
FILING DATE: 09-5EP-1992
ATTORNEY/ACENT INFORMATION:
REGISTRATION NUMBER: 32,963
REGISTRATION NUMBER: 32,963
RECISTRATION NUMBER: 32,963
TELEPRONCE/DOCKET NUMBER: 38-21(1063)
TELEPRANCE (314)537-7286
TELEPRANCE (314)537-7286
TELEPRANCE (314)537-7286
TELEPRANCE (314)537-7286
TELEPRANCE (314)537-7286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 13, Application US/08393785 Patent No. 5554369 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-083-948-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 1647 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 700 Ches
CITY: St. Louis
STATE: Missouri
```

```
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UNBER: US/08/475,694
FILING DATE: 07-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 32,963
REFERENCE/DOCKET NUMBER: 38-21(10631)A
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                            CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/393,785
FILING DATE: 24-FEB-1995
FILING DATE: 28-000-1993
APPLICATION NUMBER: US 07/762682
FILING DATE: 23-SEP-1991
PRIOR APPLICATION NUMBER: US 07/937195
FILING DATE: 09-SEP-1991
APPLICATION NUMBER: US 07/937195
FILING DATE: 09-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 13, Application US/08712057
Patent No. 5763245
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; MOLECULE TYPE: DNA (genomic) US-08-475-694-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEPHONE: (314)537-7286
TELEFAX: (314)537-6047
INFORMATION FOR SEQ ID NO: 13
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1647 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Bonner, Grace L. REGISTRATION NUMBER: 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: nucleic acid
STRANDEDNESS: single
                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-712-057-13
                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1109 tetteaacacetaettegggeactaetteetgaagetgageetgggggetgggggeetge 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   971 retrecedecedecedeceredericarreacreciecedecedecededaced 1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1169 ccgccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1031 GCACCCTGCCCGGCCTCCAGCTCCGAGGCGCCCCCAACGGCAACGCAACACA 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1229 atagggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1091 TGACCGCCGCCGAACCATGTGTGAACCCCACGGCAGCAGCAGCAGTCGTCGATCCCC 1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  contotatatoaccotocoacogotacttoctoatoacottoctotttogoatogtogtoc 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 2.6%; Score 43.6; DB 1; Length 1647; Best Local Similarity 47.2%; Pred. No. 0.089; Matches 133; Conservative 0; Mismatches 149; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Grace L. Bonner, Monsanto Company, BB4F STREET: 700 Chesterfield Parkway No. 5558862th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCCGGCGGCCTCGAGACCTGGGTCAGCCTCTACCTGGCCA 1252
                     SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/393,785
FILING DATE: 24-FEB-1995
CLASSIFICATION: 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Corbin, David R.
APPLICANT: Greenplate, John T.
APPLICANT: Jennings, Michael G.
APPLICANT: Purcell, John P.
APPLICANT: Sammons, Robert D.
TITLE OF INVENTION: Method of Controlling Insects
NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                         38-21(10631)A
                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/083,948
FILING DATE: 28-UTW-1993
APPLICATION NUMBER: US 07/762682
FILING DATE: 23-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937195
FILING DATE: 09-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 13, Application US/08475694 Patent No. 5558862 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                        NAME: Bonner, Grace L.
REGIESTRATION UNDBER: 32,963
REFRENCE/DOCKET NUMBER: 38-2:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314)537-7286
TELEPHONE: (314)537-7286
INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 1647 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic acid
EDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              St. Louis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-393-785-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-475-694-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

```
1109 tottcaacacctacttcgggcactacttcctgaagctgagcctggtggggctggggcctgc 1168
                                                                                                                                              1169 ccgccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                              1229 atagggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                     1091 TGACCGCCCGCCCACCATGTGTGGAACCCCACGGGCAGCAGCAGCAGCAGTCGTCGGTCCCCG 1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1151 CCTCGGCATGGACTGGGACAACCCCGACAACCCCGTCTTCGCCGAGATAGCCCCCA 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                         coctotatatoaccgtccacggctacttcctcatcaccttcctctttggcatggtggtcc 1348
Query Match 2.6%; Score 43.6; DB 1; Length 1647; Best Local Similarity 47.2%; Pred. No. 0.089; Matches 133; Conservative 0; Mismatches 149; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1211 TGCCGGCGGCCTCGAGACCTGGGTCAGCCTCTACCTGGCCA 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Corbin, David R.
Greenplate, John T.
Purcell, John P.
Pershing, Jay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
```

```
1169 cogcoctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1229 atagggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1289 coetetatateacegtecacggetaetteeteateacetteetetttggeatggtggtee 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1155 retrecercescecescaseeresecrestrearesecrecreseseseseses 1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Jennings, John P.
APPLICANT: Purcell, John P.
APPLICANT: Sammons, Robert D.
TITLE OF INVENTION: Method of Controlling Insects
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: Grace L. Bonner, Monsanto Company, BB4F
GTREET: 700 Chesterfield Parkway No. 5518908th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1395 recegecedecerceadaceregercadecreraceredeca 1436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 2.6%; Score 43.6; DB 1; 1 Best Local Similarity 47.2%; Pred. No. 0.093; Matches 133; Conservative 0; Mismatches 149;
                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/083,948
FILING DATE: 19930628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 38-21(10631)A
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314)537-7286
TELEPRA: (314)537-6047
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 2000

CLASSIFICATION DATA:
APPLICATION DATA:
FILING DAME: 23-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/937195
FILING DATE: 09-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Search completed: June 11, 2002, 21:27:35
                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Bonner, Grace L. REGISTRATION NUMBER: 32,963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Job time: 4176 sec
                                                                                                                                                                                                                                                                                              63198
                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-083-948-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1169 ccgccctgatggtcatcggcactgggagtgccaacagctacggcctctacaccatccgtg 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1229 ataggagaaccgcacctctctggagctatgctggttccgtgaagggacaaccatgtacg 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1289 coetetatateacegtecaeggetaetteeteateaectteetetttggeatggtggtee 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1109 tetteaacacetaettegggeactaetteetgaagetgageetggtggggetggggeetge 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1031 geaccengecessecreaserecsasaressessessessesseseseseseseancaacseranca 1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1151 cecrescaresacacressacaacecesacaacecesterresecesacarasecesa 1210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 2.6%; Score 43.6; DB 1; Length 1647; Best Local Similarity 47.2%; Pred. No. 0.089; Matches 133; Conservative 0; Mismatches 149; Indels 0
                                                                                                 ADDRESSEE: Grace L. Bonner, Monsanto Company, BB4F
STREET: 700 Chesterfield Parkway No. 5763245th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1349 tggccctggtggtctggaagatcttcaccctgtcccgtgcta 1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1211 TGCCGGCGGCCTCGAGACCTGGGTCAGCCTCTACCTGGCCA 1252
                     TITLE OF INVENTION: Method of Controlling Insects NUMBER OF SEQUENCES: 14 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                               ZIP: 63198
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIL Release #1.0, Version #1.25
GURREWT APPLICATION DATA:
APPLICATION NUMBER: US/08/712,057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Bonner, Grace L.
REGISTRATION NUMBER: 32,963
REFERENCE/DOCKET NUMBER: 38-21(10631)A
TELECOMMUTCATION INFORMATION:
TELEPHONE: (314)537-7286
TELEPRAX: (314)537-6047
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/762682
FILING DATE: 23-SEP-1991
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMBER: US 07/937195
FILING DATE: 09-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-083-948-7; Sequence 7, Application US/08083948; Patent No. 5518908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Corbin, David R.
APPLICANT: Greenplate, John T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 1647 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TOPOLOGY: linear ; MOLECULE TYPE: DNA (genomic) US-08-712-057-13
                                                                                                                           STREET: 700 Ches
CITY: St. Louis
STATE: Missouri
                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                     COUNTRY:
```

a ŏ qq δ g ŏ g ŏ g

ö

Length 1865; Indels

```
June 11, 2002, 21:25:13 ; Search time 61.01 Seconds (without alignments) 999.500 Million cell updates/sec
                                                                                                                                                                                                                                           1 MATPRGLGALLLLLLLPTSG.....STTVSSSTARLDQAHSASQE 549
                                                                                                                                                                                                                                                                                                                                                                                              747574
GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                747574 seqs, 111073796 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maximum Match 100%
Listing first 45 summaries
                                                                               OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                      BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A_Geneseq_032802:*
                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0 Maximum DB seq length: 2000000000
                                                                                                                                                                                                US-09-733-387-44
2878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
                                                                                                                                                                                                      Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                        Run on:
```

1: /SIDS1/gcgdata/geneseqy-embl/AA1980.DAT:*
2: /SIDS1/gcgdata/geneseqy/geneseqp-embl/AA1981.DAT:*
3: /SIDS1/gcgdata/geneseqy/geneseqp-embl/AA1981.DAT:*
4: /SIDS1/gcgdata/geneseqy/geneseqp-embl/AA1982.DAT:*
5: /SIDS1/gcgdata/geneseqy/geneseqp-embl/AA1982.DAT:*
5: /SIDS1/gcgdata/geneseqy/geneseqp-embl/AA1984.DAT:*
7: /SIDS1/gcgdata/geneseqy-embl/AA1986.DAT:*
8: /SIDS1/gcgdata/geneseqy-embl/AA1986.DAT:*
8: /SIDS1/gcgdata/geneseqy-embl/AA1980.DAT:*
9: /SIDS1/gcgdata/geneseqy-embl/AA1980.DAT:*
10: /SIDS1/gcgdata/geneseqy-embl/AA1980.DAT:*
11: /SIDS1/gcgdata/geneseqy-embl/AA1990.DAT:*
12: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
13: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
14: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
15: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
16: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
17: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
18: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
18: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
19: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
10: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
11: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
12: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
13: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
14: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
15: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:*
16: /SIDS1/gcgdata/geneseqy-embl/AA1991.DAT:* /SIDSI/gogdata/geneseq/geneseqp-embl/AA1997.DAT:*
/SIDSI/gogdata/geneseq/geneseqp-embl/AA1999.DAT:*
/SIDSI/gogdata/geneseq/geneseqp-embl/AA1999.DAT:*
/SIDSI/gogdata/geneseq/geneseqp-embl/AA2000.DAT:*
/SIDSI/gogdata/geneseq/geneseqp-embl/AA2000.DAT:*

AAE04469 RESULT

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result NO.	Score 2878 2696	% Ouery Match 100.0	% Ouery Match Length DB 100.0 549 22 93.7 521 22	DB 22	H i "	Description Human novel G-prot	
m	2548	88.5	508	22	AAE0449	novel	
4	2494	86.7	485	22	AAE04464	novel	
2	2494	86.7	504	22	AAE04454	novel	
9	2022	70.3	400	22	AAE04471	novel	
7	1840	63.8	372	22	AAE04461	novel	
80	1778	61.8	339	22	AAE04470	novel	
6	1692	58.8	359	22	AAE04451	novel	
10	1638	56.9	336	22	AAE04466	novel	
11	1638	56.9	355	22	AAE04456	novel	

Human novel G-prot	Human novel G-prot	novel G	Ö	Human novel G-prot	Human novel G-prot		Human novel G-prot		Human novel G-prot	Human novel G-prot	Human novel G-prot	Human bone marrow	Human gene 3 encod	Human gene 3 encod	Human novel G-prot	Haematopoietic ste	Human gene 3 encod	Human HE6 receptor	Human epididymis-s	Human gene 3 encod	Human BBSR seven t		Human seven transm	Polypeptide identi	Human polypeptide,	Human PRO1083 prot	Human PRO1083 (UNQ	Human PRO1083 prot	G protein-coupled	Human protein SEQ	Human PRO1083 poly	Human G protein co	Human membrane or	-
AAE04460	AAE04450	AAE04465	AAE04455	AAE04472	AAE04462	ABG14818	AAE04448	ABB12463	AAE04452	AAE04467	AAE04457	ABB12380	AAE03245.	AAE03244	AAE04473	AAY79182	AAE03204	AAB01247	AAW36903	AAE03246	AAB61166	AAB21700	AAB01246	AAY02382	AAM93662	AAY41765	AAB44321	AAB33435	AAY92362	AAM78369	AAU12374	AAY05730	AAB88463	
22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	21	22	21	18	22	22	21	21	20	22	20	21	21	21	22	22	20	22	
311	298	275	294	274	246	630	225	585	233	210	229	211	157	158	203	687	122	1013	1038	128	512	687	693	687	687	693	6	9	6	9	9	693	8	
5.5	е. Э	3.4	3.4	.2	6.	8.	0.8	6.	1.7	2.9	6.	1.1	6.	8.	ž.3	4.	1.4	7.7	. 2	۲.	0.1	1.0	6.0	8.	8.	7.0	7.(.7	7.(7.0	7.0	7.(9.0	
5	š	48	48	46	30	36	38	37	34	32	33	33	27	27	53	22	2	2	7	2	5	2	5	7	7	7	5	7	ñ	7	7	7	7	
1596	1448	1394	1394	1330	1148	1146	1094	1089.5	1000	946	946	896	804	799	671.5	643.5	617	610.5	610.5	607	603.5	603.5										594.5		
12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	53	30	31	32	33	34	32	36	37	38	39	40	41	42	43	44	45	

ALIGNMENTS

Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder. Donoho G, Scoville J, Turner CA, Friedrich G, Zambrowicz B; Sands AT; Human novel G-protein coupled receptor (NGPCR) protein #22. AAE04469 standard; Protein; 549 AA (LEXI-) LEXICON GENETICS INC 07-DEC-1999; 99US-0169427. 07-DEC-2000; 2000WO-US33241. (first entry) WPI; 2001-381634/40. N-PSDB; AAD08779. WO200142287-A2. Homo sapiens. 04-SEP-2001 14-JUN-2001. AAE04469;

Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or

AAE04459 standard; Protein; 521 AA.

RESULT AAE04459

AAE04459;

```
The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the

cellular membrane and are involved in signal transduction after ligand

binding. NGPCR DNA sequences are useful as hybridisation probes for

screening libraries and assessing gene expression patterns. Sequences

derived from regions adjacent to the intron/exon boundaries of NGPCR

gene can be used to design primers for use in amplification assays to

detect mutations within the exons, splice sites, introns that can be

products are useful for identifying compounds that modulate gene

products are useful for identifying compounds that modulate gene

products are useful for identifying tompounds that modulate gene

treatment of mental, physiological or behavioural disorders and diseases.

NGPCR DNA sequences and antibodies are useful for diagnostic and

dentification of subjects having a predisposition to such disorders.

NGPCR DNA sequences are also useful for drug screening and in gene

thereby for medulating NGPCR expression and to produce genetically

characteristics are also useful for drug screening and in gene

thereby for medulating NGPCR expression and to produce genetically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products
                                                       Claim 2; Page 84-86; 91pp; English.
behavioral disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          related to NGPCR.
```

549 AA; Sequence

```
ö
                                                                                                                                            SCNVENLQRYWLNYEAHLMKEGLTQKVNTPFLKALVQNLSTNTAEDFYFSLEPSQVPRQV 120
                                                                                                   121 MKDEDKPPDRVRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNR 180
                                                                                                                                                                             LVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVTKGTTGDWSSEGCSTEVRPE 240
                                                                                                                                                                                          241 GTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRERF 300
                                                                                                                                                                                                                                  301 KSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEA 360
                                                                                                                                                                                                                                                                                361 FHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELC 420
                                                                                                                                                                                                                                                                                                                             WFREGTIMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLL 480
                                                                                                                                                                                                                                                                                                                                                                                                       GLSSLVGVTWGLAIFTPLGLSTVYIFALFNSLQGVFICCWFTILYLPSQSTTVSSSTARL 540
                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                        Gaps
                                             9
                                             1 MATPRGLGALLLLLLLPTSGQEKPTEGPRNTCLGSNNMYDIFNLNDKALCFTKCROSGSD
                                                                                                                                                                                                                                                                                                                                                                         ;
0
  Length 549;
                        Indels
  Score 2878; DB 22;
Pred. No. 1.6e-289;
                        Mismatches
                      ö
100.0%;
100.0%;
Query Match 100.
Best Local Similarity 100.
Matches 549; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOAHSASQE 549
                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                     g
                                                                                                                                                                                               g
                                                                                                                                                                                                                                              엄
                                                                                                                                                                                                                                                                                       qq
                                             ô
                                                                g
                                                                                      à
                                                                                                           ద
                                                                                                                                 ò
                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                   õ
```

```
The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the

cellular membrane and are involved in signal transduction after ligand
binding. NGPCR DNA sequences are useful as hybridisation probes for

creening libraries and assessing gene expression patterns. Sequences

derived from regions adjacent to the introny-exon boundaries of NGPCR

gene can be used to design primers for use in amplification assays to

detect mutations within the exons, splice sites, introns that can be

cused in diagnostics and pharmacogenomics. NGPCR sequences and/or gene

products are useful for identifying compounds that modulate gene

creptession or gene product activity. Such compounds are useful in the

transment of mental, physiological or behavioural disorders and diseases.

NGPCR DNA sequences and antibodies are useful for diagnostic and

prognostic evaluation of disorders related to NGPCR function and for the

condentification of subjects having a predisposition to such disorders.

NGPCR DNA sequences are also useful for drug screening and in gene

cherapy for modulating NGPCR expression and to produce genetically

cherapy for modulating NGPCR expression and to produce genetically

cherapy for modulating NGPCR expression and to produce genetically

charged by proteins are useful for generating antibodies, as reagents in

character are useful for generating antibodies, as reagents in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                        drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCNVENLQRYWLNYEAHLMKEGLTQKVNTPFLKALVQNLSTNTAEDFYFSLEPSQVPRQV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; novel G-protein coupled receptor; NGPCR; signal transduction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MATPRGLGALLLLLLLPTSGQEKPTEGPRNTCLGSNNMYDIFNLNDKALCFTKCRQSGSD 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                       В;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 521;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zambrowicz
                                                                                   protein #12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                93.7%; Score 2696; DB 22;
100.0%; Pred. No. 1.1e-270;
ive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoville J, Turner CA, Friedrich G,
                                                                                   Human novel G-protein coupled receptor (NGPCR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Page 73-74; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                              (LEXI-) LEXICON GENETICS INC.
                                                                                                                                                                                                                                                                                                                             07-DEC-2000; 2000WO-US33241.
                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 93.7
Best Local Similarity 100.
Matches 514; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       521 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAD08769
                                                                                                                                                                                                                                                 WO200142287-A2.
                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                      07-DEC-1999;
                                      04-SEP-2001
                                                                                                                                                                                                                                                                                       14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Donoho G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

ö

dgahsasge 549

541

~

```
useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is human novel G protein coupled receptor (NGPCR) protein. NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand
                                                                              240
                                                                                        FHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELC 420
                                                                                                                                                                                                                            WFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          wovel polynucleotides encoding human G protein coupled receptors us for drug screening, diagnosis and in gene therapy of physiological behavioral disorders -
KSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEA
                                                                                                                        GTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRERF
                                                                                                                                     LVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVTKGTTGDWSSEGCSTEVRPE
                                                                                                                                                                               MKDEDKPPDRVRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Friedrich G, Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human novel G-protein coupled receptor (NGPCR) protein #2.
                                                                                                                                                                                                                                                                                                                    GLSSLVGVTWGLAIFTPLGLSTVYIFALFNSLQG 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Donoho G, Scoville J, Turner CA, Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                       AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4; Page 62-63; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                       508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                     AAE04449 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000WO-US33241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0169427
                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAD08759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200142287-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                  04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                            AAE04449;
          61
                                                      121
                                                                             181
                                                                                                   181
                                                                                                                          241
                                                                                                                                              241
                                                                                                                                                                    301
                                                                                                                                                                                         301
                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                           AAE04449
                                                     g
                                                                                               Db
                                                                                                                                            Db
                                                                                                                                                                   δλ
                                                                                                                                                                                        g
                                                                                                                                                                                                                                  P
                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                       ò
                                                                                                                                                                                                               QY
                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                      δ
                                                                          ò
```

```
binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the Exonostic evaluation of disorders related to NGPCR function and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and productication of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for diagnostic and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in consistent and products in NGPCR proteins are useful for generating antibodies, as reagents in a not account and products in NGPCR proteins are useful for generating antibodies, as reagents in the norder of the normal parts of the nor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCNVENLQRYWLNYEAHLMKEGLTQKVNTPFLKALVQNLSTNTAEDFYFSLEPSQVPRQV 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MKDEDKPPDRVRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNR*1$0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRERF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MATPRGLGALLLLLLLPTSGQEKPTEGPRNTCLGSNNMYDIFNLNDKALCFTKCRQSGSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVTKGTTGDWSSEGCSTEVRPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 508;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human novel G-protein coupled receptor (NGPCR) protein #17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 2548; DB 22;
Pred. No. 2.5e-255;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAE04464 standard; Protein; 485 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.5%;
99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 88.55
Best Local Similarity 99.2
Matches 486; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GLSSLVGVTW 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481 glssl--asw 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   508 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                        ţ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE04464;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE04464
ID AAE0
XX
AC AAE0
XX
XX
DT 04-S
XX
DE Huma
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
```

ï

```
treatment of mental, physiological or behavioural disorders and diseases. MORCR DNA sequences and antibodies are useful for disposite and prognostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. MORCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded diagnostic assays and for identifying other cellular gene products in elated to NGPCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is human novel G protein coupled receptor (NGPCR) protein. NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/cavo boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenemics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the
Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                                                                                                                                       Friedrich G, Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                       Turner CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 5; Page 79-80; 91pp; English.
                                                                                                                                                                                                                                                                                            (LEXI-) LEXICON GENETICS INC.
                                                                                                                                                                                                            07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                     99US-0169427.
                                                                                                                                                                                                                                                                                                                                     Scoville J,
                                                                                                                                                                                                                                                                                                                                                                                                 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAD08774
                                                                                                                          WO200142287-A2.
                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                   07-DEC-1999;
                                                                                                                                                                   14-JUN-2001.
                                                                                                                                                                                                                                                                                                                                     ο,
                                                                                                                                                                                                                                                                                                                                                           Sands AT;
                                                                                                                                                                                                                                                                                                                                     Donoho
                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
```

SCNVENLORYWLNYEAHLMKEGLTQKVNTPFLKALVQNLSTNTAEDFYFSLEPSQVPRQV 120 Gaps 1 MATPRGLGALLILLLLPTSGQEKPTEGPRNTCLGSNNMYDIFNLNDKALCFTKCRQSGSD ó Length 485; Indels 86.7%; Score 2494; DB 22; 100.0%; Pred. No. 9.6e-250; ive 0; Mismatches 0; Conservative Similarity Query Match Best Local Simi Matches 473; 61 g õ

61

g ö g ò

485 AA;

Sequence

```
420
                                                                          420
                                                                                                                                                                                                              drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                        Human; novel G-protein coupled receptor; NGPCR; signal transduction;
KSEDAPKIHVALGGSLFLLINLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEA
                                                             FHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELC
                                                                                                                                                                                                                                                                                                                              Zambrowicz B;
                                                                                         473
                                                                                                 421 WFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNR
                                                                                                                                                                                         Human novel G-protein coupled receptor (NGPCR) protein #7.
                                                                                                                                                                                                                                                                                                                              Scoville J, Turner CA, Friedrich G,
                                                                                                                                              AA.
                                                                                                                                             AAE04454 standard; Protein; 504
                                                                                                                                                                                                                                                                                                               (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                  07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                99US-0169427.
                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                    WO200142287-A2
                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                07-DEC-1999;
                                                                                                                                                                          04-SEP-2001
                                                                                                                                                                                                                                                                    14-JUN-2001
                                                                                                                                                                                                                                                                                                                              Donoho G,
                                                                                                                                                            AAE04454;
                                                                                                                                                                                                                                                                                                                                      Sands AT;
                                                                                                                               S
                              301
                                                           361
                                                                                                                               RESULT
               g
                               ð
                                           a
                                                            δλ
                                                                         g
                                                                                         à
                                                                                                       g
```

wovel polynucleotides encoding human G protein coupled receptors usefucer drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -Disclosure; Page 68-69; 91pp; English.

ö

WPI; 2001-381634/40. N-PSDB; AAD08764

Screening instructions and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene reasons or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and propostic evaluation of disorders related to NGPCR function and for the identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded ligand The present sequence is human novel G protein coupled receptor (NGPCR) protein. NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligationing. NGPCR DNA sequences are useful as hybridisation probes for

S

```
ó
                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                   Gaps
                                                                                                                  9
                                                                                                                           Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy, nootropic; pharmacogenomics; behavioural disorder.
NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products related to NGPCR.
                                                                                                                                                                                                                                                                                                                                        1 MATPRGLGALLLLLLLPTSGQEKPTEGPRNTCLGSNNMYDIFNLNDKALCFTKCRQSGSD
                                                                                                                                                         SCNVENLQRYWLNYEAHLMKEGLTQKVNTPFLKALVQNLSTNTAEDFYFSLEPSQVPRQV
                                                                                                                                                                                                  MKDEDKPPDRVRLPKSLFRSLPGNRSVVRLAVT I LD I GPGTLFKGPRLGLGDGSGVLNNR
                                                                                                                                                                                                                                           LVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVTKGTTGDWSSEGCSTEVRPE
                                                                                                                                                                                                                                                                                    GTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRERF
                                                                                                                                                                                                                                                                                                                            KSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEA
                                                                                                                                                                                                                                                                                                                                                                    FHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELC
                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                                                                                                     WFREGITMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNR 473
                                                                         Length 504;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human novel G-protein coupled receptor (NGPCR) protein #24
                                                                                              Indels
                                                                         22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoville J, Turner CA, Friedrich G,
                                                                                              ö
                                                                        Score 2494; DB 22; Pred. No. 1e-249; 0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAE04471 standard; Protein; 400
                                                                        86.7%; :
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-DEC-2000; 2000WO-US33241,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0169427.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                              Conservative
                                                                      Query Match
Best Local Similarity
                                          504 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-JUN-2001,
                                                                                            473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Donoho G,
Sands AT;
                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE04471;
                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                            Matches
                                                                                                                                                         61
                                                                                                                                                                                                 121
                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                           181
                                                                                                                                                                             61
                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 × 6 6 6
                                                                                                                                   g
                                                                                                                                                                           OD
                                                                                                                                                        ò
                                                                                                                                                                                              δ
                                                                                                                                                                                                               g
                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                             οy
                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                     QQ
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                           Ω
                                                                                                                                                                                                                                                                                                                                                                                                           Qγ
```

```
The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the

cellular membrane and are involved in signal transduction after ligand

binding. NGPCR DNA sequences are useful as hybridisation probes for

screening libraries and assessing gene expression patterns. Sequences

derived from regions adjacent to the intron/exon boundaries of NGPCR

gene can be used to design primers for use in amplification assays to

detect mutations within the exons, splice sites, introns that can be

used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene

products are useful for identifying compounds that modulate gene

expression or gene product activity. Such compounds are useful in the

treatment of mental, physiological or behavioural disorders and diseases.

NGPCR DNA sequences and antibodies are useful for diagnostic and

prognostic evaluation of disorders related to NGPCR function and for the

identification of subjects having a predisposition to such disorders.

NGPCR DNA sequences are also useful for drug screening and in gene

therapy for modulating NGPCR expression and to produce genetically

engineered host cells to express NGPCR products in vivo. The encoded

NGPCR proteins are useful for generating antibodies, as reagents in

chargonical and product and products in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    222 KGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMI 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  polynucleotides encoding human G protein coupled receptors us
rug screening, diagnosis and in gene therapy of physiological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                162 LFKGPRLGLGDGSGVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPPNMTLTCVFWDVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           282 FLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SYGLYTIRDRENRISLELCWFREGTIMYALYITVHGYFLITFLFGMVVLALVVWKIFTLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTPLGLSTVYIFALFNSLQGVFICCWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 2022; DB 22;
Pred. No. 7.3e-201;
1; Mismatches 1;
                                                                                                                        Disclosure; Page 87-88; 91pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ¥.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TILYLPSQSTTVSSSTARLDQAHSASQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tilylpsqsttvssstarldqahsasqe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70.3%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE04461 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              al Similarity 99.5
386; Conservative
                                                                                       behavioral disorders
 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         400 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        related to NGPCR.
WPI; 2001-381634
N-PSDB; AAD08781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAE04461;
                                                                      drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                     Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE04461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
AX XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΟŻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QY
```

9

```
à
                                   셤
                                                                         ö
                                                                                                         qq
                                                                                                                                                 ò
                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the
cellular membrane and are involved in signal transduction after ligand
binding. NGPCR DNA sequences are useful as hybridisation probes for
screening libraries and assessing gene expression patterns. Sequences
derived from regions adjacent to the intron/exon boundaries of NGPCR
gene can be used to design primers for use in amplification assays to
detect mutations within the exons, splice sites, introns that can be
used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene
products are useful for identifying compounds that modulate gene
expression or gene product activity. Such compounds are useful in the
treatment of mental, physiological or behavioural disorders and diseases.
NGPCR DNA sequences and antibodies are useful for diagnostic and
dentification of subjects having a predisposition to such disorders.
NGPCR DNA sequences are also useful for drug screening and in gene
therapy for modulating NGPCR expression and to produce genetically
engineered host cells to express NGPCR produce genetically
engineered host cells to express NGPCR products in vivo. The encoded
NGPCR proteins are useful for generating antibodies, as reagents in
classages and product for generating antibodies, as reagents in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                          drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   162 LFKGPRLGLGDGSGVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVT 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           222 KGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMI 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWAR 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                         transduction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 372;
                                   Human novel G-protein coupled receptor (NGPCR) protein #14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                     Human; novel G-protein coupled receptor; NGPCR; signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1840; DB 22;
Pred. No. 5.1e-182;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                Scoville J, Turner CA, Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 76-77; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63.9%;
99.4%;
                                                                                                                                                                                                                                                                                                                             (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                           99US-0169427.
                                                                                                                                                                                                                                                       07-DEC-2000; 2000WO-US33241.
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similaricy Matches 351; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          372 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-381634/
N-PSDB; AAD08771.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      related to NGPCR.
                                                                                                                                                                                 WO200142287-A2
                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                         07-DEC-1999;
04-SEP-2001
                                                                                                                                                                                                                     14-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133
```

8 ò q ò

ò

```
The present sequence is human novel G protein coupled receptor (NGPCR) protein. NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intronfexon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be products are useful for identifying compounds that modulate gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the transment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the transment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                      GAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSAN 401
                                 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products related to NGPCR.
                                                                                                                                                            SYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В;
                                                                                                                                                                                                                                                                                                                                                                      Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human novel G-protein coupled receptor (NGPCR) protein #23.
                                                                                                                                                                                                                                                                                                                            RATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTPLGLSTVYIFALFNSLQG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Turner CA, Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 86-87; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ą.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE04470 standard; Protein; 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LEXI-) LEXICON GENETICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoville J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAD08780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200142287-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Donoho G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE04470;
                                                                                                                                                                                                                                                                                                                            462
342
                                                                           193
                                                                                                                                                            102
```

```
10
                                                                                                                                                                                                                                                                              222
                                                                                                                                                                                                                                                                                                                                                       342
                                                                                                                                                                                                                                                                                                                                                                        193
                                                                                                                                                                                                                                                                                                                                                                                           402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE04466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                        QQ
                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                               Ωý
ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence is human novel G protein coupled receptor (NGPCR) protein. NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand
                                                                                                                                               MTLTCVFWDVTKGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTR 270
                                                                                                  271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSG 330
                                                                                                           ALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVL 450
                                                                                                                                                                                                               ALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTPLGLSTVYIFALFN 510
                                                                                                                                                                                                                                                                                                                                                                                          Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavloural disorder.
                                             Gaps
                                                                               9
                                                                        SKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Donoho G, Scoville J, Turner CA, Friedrich G, Zambrowicz B;
Sands AT;
                                            ;
0
                         Length 339;
                                                                                                                                                                                                                                                                                                                                                                         Human novel G-protein coupled receptor (NGPCR) protein #4.
                         61.8%; Score 1778; DB 22;
100.0%; Pred. No. 1.2e-175;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                    511 SLQGVFICCWFTILYLPSQSTTVSSSTARLDQAHSASQE 549
                                                                                                                                                                                                                                                              slggvficcwftilylpsqsttvssstarldqahsasqe 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 65-66; 91pp; English.
                                                                                                                                                                                                                                                                                                                    AAE04451 standard; Protein; 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99US-0169427.
                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-381634/40.
                                   Similarity
AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAD08761
339
                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200142287-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                       04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-JUN-2001
                                   Best Local Sim.
Matches 339;
                                                                                                                                                                                                                                                                                                                                      AAE04451;
Sequence
                           Query Match
                                                              211
                                                                                                                                                                                                               451
                                                                                                                    61
                                                                                                                                       331
                                                                                                                                                                          391
                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                RESULT
AAE04451
g
                                                                                                                                                                                           qq
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                    g
                                                                                                                   g
                                                                                                                                                     Q
                                                                                                 ŏ
                                                                                                                                       ğ
                                                                                                                                                                          Ω
                                                                                                                                                                                                               ογ
                                                                                                                                                                                                                                                   οy
```

```
binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mertal, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSAN 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            253 syglytirdrenrtslelcwfregttmyalyitvhgyflitflfgmvvlalvvwkiftls 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SYGLYTIRDRENRISLELCWFREGITMYALYITVHGYFLITFLFGMVVLALVVWKIFTLS 461
                                                                                                                                                                                                                                                                                                                                                                                       Identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in elagnostic assays and for identifying other cellular gene products in related to NGPCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          162 LFKGPRLGLGDGSGVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPPNMTLTCVFWDVT 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMI 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  282 FLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 359;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human novel G-protein coupled receptor (NGPCR) protein #19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1692; DB 22;
Pred. No. 1.1e-166;
2; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     313 ratavkergknrkkvltllglssl--asw 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                462 RATAVKERGKNRKKVLTLLGLSSLVGVTW 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE04466 standard; Protein; 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 58.8%;
Best Local Similarity 98.2%;
Matches 323; Conservative 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             359 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE04466;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
```

ij

œ

```
screening libraries and assessing gene expression patterns. Sequences derived from regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exons, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for diagnostic and prognostic evaluation of disorders related to NGPCR function and for the
                                                                                                                                                                                                                      Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                              (NGPCR) protein. NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products
                                                                                                     Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                                                           present sequence is human novel G protein coupled receptor
                                                                                         Donoho G, Scoville J, Turner CA, Friedrich G,
                                                                                                                                                                                                                                                                                                                                  English.
                                                (LEXI-) LEXICON GENETICS INC.
99US-0169427.
                                                                                                                                                                                                                                                                                                                           Disclosure; Page 82; 91pp;
                                                                                                                                                                 WPI; 2001-381634/40.
                                                                                                                                                                                         N-PSDB; AAD08776
07-DEC-1999;
                                                                                                                     Sands AT;
```

336 AA; Sequence

```
ö
                                         LFKGPRLGLGDGSGVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVT 221
                                                                                              282 FLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWAR 341
                                                                                                                                        GAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSAN 401
                                                                                                                                                                                                                          SYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLS 461
                                                    KGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMI
   Length 336;
                       Indels
 Score 1638; DB 22;
Pred. No. 4.1e-161;
1; Mismatches 1;
 56.9%;
99.4%;
Query Match 56.9
Best Local Similarity 99.4
Matches 310; Conservative
                                                                                                                                                                                                                                                         RATAVKERGKNR 473
                                                                                                                                                                                                                                                                    162
                                                                                  222
                                                                                                      73
                                                                                                                                                                    342
                                                                                                                                                                                                               402
                                                                                                                                                                                                                                                        462
                                                                                                                                                                                                                                                                             313
                                         ò
                                                             a
a
                                                                                                      g
                                                                                                                           ö
                                                                                                                                               qq
                                                                                                                                                                                      g
                                                                                                                                                                    ò
                                                                                                                                                                                                             à
                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                       ò
```

ô

282 FLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWAR 341

ò

AAE04456 standard; Protein; 355 AA.

RESULT 1

```
The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the
cellular membrane and are involved in signal transduction after ligand
binding. NGPCR DNA sequences are useful as hybridisation probes for
screening libraries and assessing gene expression patterns. Sequences
derived from regions adjacent to the intron/exon boundaries of NGPCR
gene can be used to design primers for use in amplification assays to
detect mutations within the exons, splice sites, introns that can be
used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene
products are useful for identifying compounds that modulate gene
expression or gene product activity. Such compounds are useful in the
treatment of mental, physiological or behavioural disorders and diseases.
NGPCR DNA sequences and antibodies are useful for diagnostic and
prognostic evaluation of disorders related to NGPCR function and for the
identification of subjects having a predisposition to such disorders.
NGPCR DNA sequences are also useful for drug screening and in gene
therapy for modulating NGPCR expression and to produce genetically
engineered host cells to express NGPCR products in vivo. The encoded
NGPCR proteins are useful for generating antibodies, as reagents in
diagnostic assays and for identifying other cellular gene products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel polynuclectides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or
                                                                                                                                Human; novel G-protein coupled receptor; NGPCR; signal transduction, drug screening, transmembrane protein; mental disorder; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   162 LFKGPRLGLGDGSGVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVT 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMI 281
                                                                                                                                                                                                                                                                                                                                                                                                                                       Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 355;
                                                                                             G-protein coupled receptor (NGPCR) protein #9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                       nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoville J, Turner CA, Friedrich G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1638; DB 22;
Pred. No. 4.5e-161;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 70; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                             (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56.9%;
99.4%;
                                                                                                                                                                                                                                                                                                                       07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                          99US-0169427.
                                                      04-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 99.44
Matches 310; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for drug screening, d
behavioral disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-381634/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        355 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAD08766
                                                                                                                                                                                                                                               VO200142287-A2.
                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                          07-DEC-1999;
                                                                                             Human novel
                                                                                                                                                                                                                                                                                    14-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                   Donoho G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
```

diagnostic assays and for identifying other cellular gene products related to $\ensuremath{\mathsf{NGPCR}}\xspace$.

311 AA;

Sequence

SSXS

```
The present sequence is human novel g protein coupled receptor (NGPCR) protein. NGPCRs are transmembrane proteins that span the cellular membrane and are involved in signal transduction after ligand binding. NGPCR DNA sequences are useful as hybridisation probes for screening libraries and assessing gene expression patterns. Sequences of screening libraries and assessing gene expression patterns. Sequences of NGPCR can regions adjacent to the intron/exon boundaries of NGPCR gene can be used to design primers for use in amplification assays to detect mutations within the exoris, splice sites, introns that can be used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene products are useful for identifying compounds that modulate gene expression or gene product activity. Such compounds are useful in the treatment of mental, physiological or behavioural disorders and diseases. NGPCR DNA sequences and antibodies are useful for adapostic or identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host calls to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                              253 syglytirdrenrtslelcwfregttmyalyltvhgyflitfligmvvlalvvwkiftls 312
                                                                                                                             461
                 flaftiilyaflrlsrerfksedapkihvalggslfllnlaflvnvgsgskgsdaacwar 192
                                                                          GAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSAN
                                                                                                                               SYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLS
Turner CA, Friedrich G, Zambrowicz B;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human novel G-protein coupled receptor (NGPCR) protein #13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 75-76; 91pp; English.
                                                                                                                                                                                                                                                                                                                                      AAE04460 standard; Protein; 311 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0169427.
                                                                                                                                                                                                                                                                                                                                                                                                                04-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoville J,
                                                                                                                                                                                                         RATAVKERGKNR 473
                                                                                                                                                                                                                                WPI; 2001-381634/40.
N-PSDB; AAD08770.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200142287-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                               AAE04460;
                                                                                                                                                                                                           462
                       133
                                                            342
                                                                                                                                   402
                                                                                                                                                                                                                                                                                                 RESULT 1
AAE04460
ID AAE0
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                           QQ
                                                                                                                                 ò
                                                                                                                                                                    g
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                          q
                                                          ŏ
```

```
Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders
                                                                                                                                                                                                                                                                                                                                                                                                                          Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.
                                                                                                                                                                                                                   211 MILICVFWDVTKGTTGDWSSEGCSTEVRPEGTVCCCDHLIFFALLLRPTLDQSTVHILTR 270
                                                                                                                                         271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSG 330
                                                                                                                                                                          ALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVL 450
                     Gaps
                                                               9
                                                                                                                               331 SKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLP
                                                     Friedrich G, Zambrowicz B;
                     ;
0
Length 311;
                                                                                                                                                                                                                                                                                                                                                                                                       Human novel G-protein coupled receptor (NGPCR) protein #3.
                     Indels
  55.5%; Score 1596; DB 22;
100.0%; Pred. No. 8.4e-157;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoville J, Turner CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 64; 91pp; English.
                                                                                                                                                                                                                                                                                                                                         AAE04450 standard; Protein; 298 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (LEXI-) LEXICON GENETICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-DEC-2000; 2000WO-US33241.
                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
              Best_Local Similarity 100.
Matches 304; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-381634/40.
N-PSDB; AAD08760.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200142287-A2
                                                                                                                                                                                                                                                                  511 SLQG 514
                                                                                                                                                                                                                                                                                       301 slqg 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-JUN-2001.
                                                                                                                                                                                                                                                                                                                                                                                      04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                 AAE04450;
     Query Match
                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                             391
                                                                                                                                                                                                                                                                                                                                  AAE04450
                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                               유
                                                                                                                                                                                                                         ò
                                               δ
                                                                   g
                                                                                                          qq
                                                                                                                                  δ
                                                                                                                                                      op
                                                                                                                                                                          δλ
                                                                                         QΥ
```

```
The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the
cellular membrane and are involved in signal transduction after ligand
binding. NGPCR DNA sequences are useful as hybridisation probes for
screening libraries and assessing gene expression patterns. Sequences
derived from regions adjacent to the intron/scon boundaries of NGPCR
gene can be used to design primers for use in amplification assays to
detect mutations within the exons, splice sites, introns that can be
used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene
products are useful for identifying compounds that modulate gene
expression or gene product activity. Such compounds are useful in the
treatment of mental, physiological or behavioural disorders and diseases.
NGPCR DNA sequences and antibodies are useful for diagnostic and
prognostic evaluation of disorders related to NGPCR function and for the
identification of subjects having a predisposition to such disorders.
NGPCR DNA sequences are also useful for drug screening and in gene
therapy for modulating NGPCR expression and to produce genetically
engineered host cells to express NGPCR products in vivo. The encoded
therapy can be useful for generating antibodies, as reagents in
diagnostic assays and for identifying other cellular gene products
```

298 AA; Sequence

```
ï
                                                                                                                                                                                      211 MILICVFWDVTKGTIGDWSSEGCSTEVRPEGTVCCCDHLIFFALLLRPTLDQSTVHILIFR 270
                                                                                                                              01 isqaqcqvsmiflaftillyaflrlsrerfksedapkihvalggslflnlaflvnvgsg 120
                                                                                                                                                                       331 SKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLP 390
                                                                                                               271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSG 330
                                                                                                                                                                                                                             ALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVL 450
                               Gaps
                                                                        5,
 Length 298;
                              Indels
Score 1448; DB 22;
Pred. No. 1.8e-141;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                  451 ALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTW 490
 50.3%;
98.6%;
                              Conservative
               Best Local Similarity
Matches 276; Conserv
    Query Match
                                                                                                                                                                                                                            391
                                                         ò
                                                                                  g
                                                                                                                                      g
                                                                                                                                                                     ó
                                                                                                                                                                                            qq
                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                à
                                                                                                               à
```

Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder. Human novel G-protein coupled receptor (NGPCR) protein #18. ¥. AAE04465 standard; Protein; 275 07-DEC-2000; 2000WO-US33241. 99US-0169427 (first entry) WO200142287-A2. 04-SEP-2001 Homo sapiens 07-DEC-1999; 14-JUN-2001 AAE04465; RESULT 14

(first entry)

04-SEP-2001

```
The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the

cellular membrane and are involved in signal transduction after ligand

binding. NGPCR DNA sequences are useful as hybridisation probes for

screening libraries and assessing gene expression patterns. Sequences

derived from regions adjacent to the intron/exon boundaries of NGPCR

gene can be used to design primers for use in amplification assays to

detect mutations within the exons, splice sites, introns that can be

products are useful for identifying compounds that modulate gene

products are useful for identifying compounds are useful in the

products are useful, physiological or behavioural disorders and diseases.

NGPCR DNA sequences and antibodies are useful for diagnostic and

prognostic evaluation of disorders related to NGPCR function and for the

identification of subjects having a predisposition to such disorders.

NGPCR DNA sequences are also useful for drug screening and in gene

therapy for modulating NGPCR expression and to produce genetically

chargeness to modulating no expression and to produce genetically

chargeness are useful for generating antibodies, as reagents in

diagnostic assays and for identifying other cellular gene products.
                                                                                                                                                          Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVL 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               211 MILITCVFWDVTKGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTR 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSG 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLP 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 275;
                                                Zambrowicz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / Match 48.4%; Score 1394; DB 22;
Local Similarity 100.0%; Pred. No. 6.6e-136;
Hes 263; Conservative 0; Mismatches 0;
                                              Friedrich G,
                                                                                                                                                                                                                                  Disclosure; Page 81; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAE04455 standard; Protein; 294 AA.
                                                  CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451 ALVVWKIFTLSRATAVKERGKNR 473
                                                Turner
             (LEXI-) LEXICON GENETICS INC.
                                                  Scoville J,
                                                                                                   WPI; 2001-381634/40.
N-PSDB; AAD08775.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          275 AA;
                                                Donoho G,
Sands AT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAE04455;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Π
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             XXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

```
Human novel G-protein coupled receptor (NGPCR) protein #8.
```

Human; novel G-protein coupled receptor; NGPCR; signal transduction; drug screening; transmembrane protein; mental disorder; gene therapy; nootropic; pharmacogenomics; behavioural disorder.

Homo sapiens,

WO200142287-A2.

14-JUN-2001.

07-DEC-2000; 2000WO-US33241.

99US-0169427. 07-DEC-1999;

(LEXI-) LEXICON GENETICS INC.

Scoville J, Turner CA, Friedrich G, Zambrowicz B; Donoho G, Sands AT;

WPI; 2001-381634/40. N-PSDB; AAD08765.

Novel polynucleotides encoding human G protein coupled receptors useful for drug screening, diagnosis and in gene therapy of physiological or behavioral disorders -

Disclosure; Page 69-70; 91pp; English.

The present sequence is human novel G protein coupled receptor

(NGPCR) protein. NGPCRs are transmembrane proteins that span the
cellular membrane and are involved in signal transduction after ligand
binding. NGPCR DNA sequences are useful as hybridisation probes for
screening libraries and assessing gene expression patterns. Sequences
derived from regions adjacent to the intron/exon boundaries of NGPCR
gene can be used to design primers for use in amplification assays to
detect mutations within the exons, splice sites, introns that can be
used in diagnostics and pharmacogenomics. NGPCR sequences and/or gene
products are useful for identifying compounds that modulate gene
products are useful for identifying compounds that modulate gene
creatment of mental, physiological or behavioural disorders and diseases.
NGPCR DNA sequences and antibodies are useful for diagnostic and
interval and interval and interval are useful for diagnostic and
interval and interval and interval are useful for diagnostic and
interval and inte identification of subjects having a predisposition to such disorders. NGPCR DNA sequences are also useful for drug screening and in gene therapy for modulating NGPCR expression and to produce genetically engineered host cells to express NGPCR products in vivo. The encoded NGPCR proteins are useful for generating antibodies, as reagents in diagnostic assays and for identifying other cellular gene products in related to NGPCR. NAME OF THE PROPERTY OF THE PR

294 AA; Seguence

ó 211 MTLTCVFWDVTKGTTGDWSSEGCSTEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTR 270 271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSG 330 61 isqagcgvsmiflaftiilyaflr1srerfksedapkihvalggslf11n1aflvnvgsg 120 SKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLP 390 391 ALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVL 450 Gaps 0; Length 294; 0; Indels 48.4%; Score 1394; DB 22; 100.0%; Pred. No. 7.3e-136; Live 0; Mismatches 0; Query Match
Best Local Similarity 100.0
Matches 263; Conservative 331 ďΩ δy QQ ŏ q ò

181 almvigtgsansyglytirdrenrtslelcwfregttmyalyitvhgyflitflfgmvvl 240

451 ALVVWKIFTLSRATAVKERGKNR 473 ò

241 alvvwkiftlsratavkergknr

Dp

Search completed: June 11, 2002, 22:23:24 Job time: 3431 sec

Title: Perfect score:

Run on:

Sequence:

Scoring table:

Searched:

Database

```
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                        Sequence Seq
                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11.0%; Score 316; DB 4; Length 521; 28.6%; Pred. No. 1.4e-23; Live 55; Mismatches 165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-469-477-7
US-08-466-011A-2
US-09-216-468A-2
PCT-0595-07085-2
US-07-79-885A-1
US-09-370-098-3
US-09-370-098-3
US-09-538-816A-2
US-09-208-3
US-09-208-3
US-09-208-3
US-09-208-3
US-09-208-3
US-09-208-3
US-09-208-3
US-09-208-3
                                                                                                                                                                                                                                                                                   US-08-453-742-2
US-08-454-464-2
US-08-453-222-2
US-08-452-802-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: PRESTIA, PAUL F
REGISTRATION NUMBER: 23,031
REFERENCE/DOCKET NUMBER: GH-70075
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-407-0700
TELEFAX: 610-407-0701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/08956322
Patent No. 6277977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        : 521 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 610-407-0701
TELEX: 846169
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 11.0
Best Local Similarity 28.6
Matches 105; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear

MOLECULE TYPE: protein

US-08-956-322-4
  STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-956-322-4
148.5
148.5
143.1
143.1
143.1
134.1
134.1
134.1
133.5
133.5
133.5
133.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
  (without alignments) 538.973 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 12, Appl
Sequence 13, Appl
Sequence 6, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 12, Appli
Sequence 12, Appli
Sequence 12, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2, Appli
4, Appli
2, Appli
2, Appli
3, Appli
3, Appli
6, Appli
1, Appli
4, Appli
11, Appli
4, Appli
4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 125, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 4, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Ap
Sequence 4, Ap
Sequence 12, A
                                                                                                                                                                                                               US-09-733-387-44
2878
1 MATPRGLGALLLLLLLPTSG.....STIVSSSTARLDQAHSASQE 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 4,
Sequence 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3
Sequence 2
Sequence 5
Sequence 6
Sequence 2
Sequence 2
                                                                                                                                   June 11, 2002, 21:31:23 ; Search time 24.88 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PcTuS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/PcTuS_COMB.pep:*
                GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-110-116-1

US-09-110-116-1

US-09-110-116-1

US-09-110-116-3

US-09-110-116-3

US-09-370-098-5

US-08-370-098-6

US-09-370-098-6

US-09-370-098-6

US-09-370-098-6

US-08-981-189B-12

US-08-981-189B-13

US-08-981-189B-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -08-468-249A-18
-08-142-439A-6
-08-142-551B-125
                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                               231628 seqs, 24425594 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                               protein search, using sw model
                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match Length
```

Score

Result ٠ و 149.5 148.5 148.5 148.5

151

16;

543

```
RENRISLELCWFREGITMYALYITVHGYFLITFLFGMVVLALVVW----KIFTLSRATAV 466
                                 R-----CWLHLDQGFMWSFL---GPVCAIFSANLVLFILVFWILKRKLSSLNSEVST
                                                                      467 KERGKNRKKVLTLLGLSSL--VGVTW--GLAIFTPLGLSTVYIFALFNSLQGVFICCWFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 652 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA: APPLICATION NUMBER: US,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: PRESTIA, PAUL F
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM CON OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                 : | ||
597 VYCLLSQ 603
                                                                                                                                            523 ILYLPSQ 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19482
                                                                                                                                                                                                                                RESULT 3
US-08-956-322-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-956-322-2
                                     495
                                   g
                                                                                                     Dp
                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16;
                      355 WMGLEAFHLYLLA--VRVFNTYFGHYFLKLSL--VGWGLPALMVIGTGSANSYGLYTIRD 410
                                                                                                                                                                                                                                   364 R------CWLHLDQGFWMSFL---GPVCAIFSANLVLFILVFWILKRKLSSLNSEVST 412
                                                                                                                                                                                                                                                                                                                                                                            355 WMGLEAFHLYLLA--VRVFNTYFGHYFLKLSL--VGWGLPALMVIGTGSANSYGLYTIRD 410
                                                                                                193 IHVNKSHTMCNCSHLSSFAVLMALT-SQEEDPVLTVITYVGLSVSLLCLLLAALTFLLCK 251
                                                                                                                                                                                                                                                                                   411 RENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVW----KIFTLSRATAV 466
                                                                                                                                                                                                                                                                                                                                                        467 KERGKNRKKVLTLLGLSSL--VGVTW--GLAIFTPLGLSTVYIFALFNSLQGVFICCWFT 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               235 TEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                            295 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                             235 TEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    295 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
   LNNRLVGLSVGQMHVTKLAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGTTGDWSSEGC-S 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         177 LNNRLVGLSVGQMHVTKLAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGTTGDWSSEGC-S 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11.0%; Score 316; DB 3; Length 652; 28.6%; Pred. No. 2e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      165; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xu, Hong
APPLICANT: Cohan, Victoria L.
APPLICANT: Cohan, Victoria L.
APPLICANT: Stuart, Suan G.
TITLE OF INVENTION: HOWAN EMRI-LIKE G PROTEIN COUPLED
TITLE OF INVENTION: RECEPTOR
FILE REPERBURE: PR-0550 US
CURRENT APPLICATION NUMBER: US/09/110,116
CURRENT FILING DATE: 1998-07-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      55; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 1
LENGTH: 652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            , OTHER INFORMATION: 429905, EOSINOT03
US-09-110-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/09110116
Patent No. 6013479
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 20.0 Matches 105; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                466 VYCLLSQ 472
                                                                                                                                                                                                                                                                                                                                                                                                                             523 ILYLPSQ 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-110-116-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                           q
 ò
                                   g
                                                                      ò
                                                                                                    g
                                                                                                                                          ò
                                                                                                                                                                          g
                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
```

```
16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        324 IHVNKSHTMCNCSHLSSFAVLMALT-SQEEDPVLTVITYVGLSVSLLCLLLAALTFLLCK 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ||:::| ::| || ||::::| || ||:|| || ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||:|| ||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235 TEVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              177 LNNRLVGLSVGQMHVTKLAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGTTGDWSSEGC-S 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match 11.0%; Score 316; DB 4; Length 652; Best Local Similarity 28.6%; Pred. No. 2e-23; Matches 105; Conservative 55; Mismatches 165; Indels
Sequence 2, Application US/08956322

Patent No. 6277977

GENERAL INFORMATION:
APPLICANT: SATHE, GANESH
APPLICANT: MAO, JOYCE
TITLE OF INVENTION: CDNA CLONE HAPOIG7 THAT ENCODES
TITLE OF INVENTION: A HUMAN 7-TRANSMEMBRANE RECEPTOR
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: RATHER & PRESTIA
STREET: P.O. BOX 980
CITY: VALLEY FORGE
STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NYSTEM: DOS
FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . vers
23-ост-1997
18. 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GH-70075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/049,329
FILING DATE: 11-JUN-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: GH
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-407-0701
TELEFAX: 610-407-0701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23,031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEX: 846169
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
```

3

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      pp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12;
                                  383 AIONTSTS----LHLQLSLCLFLAHLLFL--VGIDRTEPKVLCSIIAGALHYLYLAAFT 435
                                                                         WMGLEAFHLYLLA--VRVFNTYFGHYFLKLSL--VGWGLPALMVIGTGSANSYGLYTIRD 410
                                                                                                                                                                                   R------CWLHLDQGFMWSFL---GPVCAIFSANLVLFILVFWILKRKLSSLNSEVST 543
                                                                                                                                                                                                                                                       544 IQ----NTRMLAFKATAQLFILGCTWCLGLLQVGPAAQVMAYLFTIINSLQGFFI---FL 596
                                                                                                  295 LSRERFKSEDAPKIHVALGGSLFLLINLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         215 CVFWDVTKGTTGDWSSEGCST-EVRPEGTVCCCDHLTFFALLLRRPTLDQSTVHILTRISQ 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    274 AGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKG 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63 MGLSVSLLCLLLAALTFLLCKAIQNTSTS-----LHLQLSLCLFLAHLLFLVAI--DQTG 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                334 SDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLA--VRVFNTYFGHYFLKLSL--VGWGL 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        116 HKVLCSIIAGTLHYLXLATFTWMLLEALYLFLTARNLTVVNYSSINRFWKKLMFPVGYGY 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             390 PALMVIGTGSANSYGLYTIRDRENRTSLELCWFR-EGTTMYALYITVHGYFLITFLFGMV 448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    176 PA-VIVAISAASRPHLYGIPSR-----CWLQPEKGFIWGFLGPVCAIFSVNLVLFLV 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         449 VLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFT--PLGLSTVYIF 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               467 KERGKNRKKVLTLLGLSSL--VGVTW--GLAIFTPLGLSTVYIFALFNSLQGVFICCWFT
                                                                                                                                                       411 RENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVW----KIFTLSRATAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 10.4%; Score 300; DB 3; Length 344; Best Local Similarity 29.4%; Pred. No. 3.2e-22; Matches 95; Conservative 50; Mismatches 148; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Xu, Hong
APPLICANT: Cohan, Victoria L.
APPLICANT: Cohan, Victoria L.
APPLICANT: Stuart, Susan G.
TITLE OF INVENTION: HUMAN EMRI-LIKE G PROTEIN COUPLED
TITLE OF INVENTION: RECEPTOR
FILE REPEBENCE: PF-0550 US
CURRENT APPLICATION NUMBER: US/09/110,116
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; OTHER INFORMATION: 2935597, GenBank
US-09-110-116-4
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US/09110116
Patent No. 6013479
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             : |||||||| | : | ||
285 TIINSLQGVFI---FLVYCLLSQ 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       507 ALFNSLQGVFICCWFTILYLPSQ 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                              ILYLPSQ 529
                                                                                                                                                                                                                                                                                                                                              597 VYCLLSQ 603
                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-110-116-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 4
LENGTH: 344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                           355
                                                                                                                                                                                           495
                                                                                                                                                                                                                                                                                                              523
                                  g
                                                                                                                                                                                     qq
                                                                                                                                                                                                                                                               qq
                                                                         ò
                                                                                                            a
                                                                                                                                                   δ
                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                            QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οŽ
```

```
318 LLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAV-RVFNTYFG 376 :| 1: 1| : 1| : 1| : 1| : 1|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 118 RQVMKDEDK-PPDRVRLPKS-LFRSLPGNRSVVRLAVTI-LDIGPGTLFKGP----RLG 169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LGDGS------GVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPP------PNMTLT-- 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ------CVFWDVIK--GTIGDWSSEGCST-EVRPEGTVCCCDHLTFFALLLRPTLD 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           262 QSTVHILTRIS---QAGCGVSMIFLAFTIILY-AFLRLSRERFKSEDAPKIHVALGGSLF 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10.2%; Score 292.5; DB 2; Length 1052; 28.2%; Pred. No. 1.1e-20; tive 57; Mismatches 186; Indels 81;
                                                     GENERAL INFORMATION:
APPLICANT: Shoji Fukusumi
APPLICANT: Shuji Hinuma
TITLE OF INVENTION: NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                           ADDRESSEE: SmithKline Beecham Corporation
STREET: 709 Swedeland Road
CITY: King of Prussia
                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/852,806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAK50002
                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/017,915
FILING DATE: 16 MAY 1996
ATTORNEY/AGENT INFORMATION:
                  Sequence 2, Application US/08852806
Patent No. 5874245
                                                                                                                                                                                                                                                                                                                                                         SYSTEM: DOS
FastSEQ Version 1.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            34,344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: TA
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5219
TELEFAX: 610-270-5090
                                                                                                                                                                                                                                                                                                                    E: Diskette
IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 2. SEQUENCE CHARACTERISTICS: LENGTH: 1052 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Han, William T
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                    COUNTRY: U.S.A.
ZIP: 19406-0939
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: peptide HYPOTHETICAL: NO
                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 127; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FRAGMENT TYPE:
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>Q</u>
                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                       PA
                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE:
                                                                                                                                                                                                                                                                                                                                    COMPUTER:
US-08-852-806-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; OKTGINAL S.
US-08-852-806-2
                                                                                                                                                                                                                                     STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δý
```

23;

```
SEQ ID NO 5
LENGTH: 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-370-098-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Loca
Matches
                             <u>.</u>6
                                                               à
                                                                                           g
                                                                                                                                ò
                                                                                                                                                              g
                                                                                                                                                                                                ò
                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23;
                              377 HYFLKLSLVGWGLPALMV---IGTGSANSYGLYTIRDRENRTSLELCWFR-EGTTMYALY 432
                                                            ----TSSYCWLSLEGGLLYAFV 581
                                                                                                                               582 GPAAVIVLVNMLIGIIVFN-----KLMARDGISDKSKKQRAGASLWSSCVVLPLLALT 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |: ||| : ||| : || | | | | 304
245 RRGMKDWVRHSEDRLFLPKEVLSLSSPGKPATSGAAGSPGRGRGPGTVPPGPGHSHQRLL 304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
ILASNILILUGQSRVLSKGVCTMTAAFLHFFFLSSFCWVLTEAWQSYLAVIGRMRTRLVR
                                                                                              433 ITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLG---LSSLVGVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1052;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RQVMKDEDK-PPDRVRLPKS-LFRSLPGNRSVVRLAVTI-LDIGPGTLFKGP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                              APPLICANT: FUKUSUMI, SHOJI
APPLICANT: HINDMA, SHUJI
APPLICANT: HINDMA, SHUJI
APPLICANT: FUJII, RYO
TITLE OF INVENTION: NOVEL HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTOR (HIBCD07)
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10.2%; Score 292.5; DB 3; 28.2%; Pred. No. 1.1e-20; Live 57; Mismatches 186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                   490 WGLAIFTPLGLSTVY -- - IFALFNSLQGVFI 517
                                                                                                                                                                                              635 WMSAVLAMTDRRSVLFQALFAVFNSAQGFVI 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAK-50002-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JMBER: US/09/163,669
30-SEP-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/852,806
FILING DATE: 07.MAY-1997
APPLICATION NUMBER: 60/017,915
FILING DATE: 16.MAY-1996
ATTORNEY/ACENT INFORMATION:
NAME: Prestia, Paul F
REGISTRATION NUMBER: 23,031
                                                                                                                                                                                                                                                                             Sequence 2, Application US/09163669
Patent No. 6111076
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Ratner & Prestia
STREET: P.O. Box 980
CITY: Valley Forge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: TA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEX: 846169
INFORMATION FOR SEQ ID NO: 2: SEQUENCE CHARACTERISTICS: LENGTH: 1052 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610-407-0700
610-407-0700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 28.2°
Matches 127; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
FILING DATE: 30-SEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΡA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                              RESULT 6
US-09-163-669-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-163-669-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: \STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        118
                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q
                              ò
                                                          qq
                                                                                            ò
                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

```
11;
                                                                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  318 LLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAV-RVFNTYFG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377 HYFLKLSLVGWGLPALMV---IGTGSANSYGLYTIRDRENRTSLELCWFR-EGTTMYALY 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   267 ILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVN 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327 VGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFG---HYFLKLS 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          444 LFGMVVLALVVWKIF-----TLSRATAVKERGKNR-----KKVLTLLGLSSLVGVTW-- 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 424 -LTLELAGSPSVPLVIGCAVSCMALLTLLAIYARFWRF----IKSE---RSIILLNFCLS
---GVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPP-----PNMTLT--
                                                                                                                                                                                                                                      ------CVFWDVTK--GTTGDWSSEGCST-EVRPEGTVCCCDHLTFFALLLRPTLD
                                                                                                                                                                                                                                                                                                    262 QSTVHILTRIS---QAGCGVSMIFLAFTIILY-AFLRLSRERFKSEDAPKIHVALGGSLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :| |: || |: || |: || |: || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     433 ITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLG---LSSLVGVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   384 LVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   115 -- GYCFPAL-VVGIAAAIDYRSYGTE-----KACWLR------VDNYFIWSF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Lin, Yi-Jyun
APPLICANT: Lin, Yi-Jyun
APPLICANT: Benzer, Seymour
APPLICANT: Benzer, Seymour
APPLICANT: Galifornia Institute of Technology
ITILE OF INVENTION: METHUSELAH GENE, COMPOSITIONS AND
ITILE OF INVENTION: METHUSELAH GENE, COMPOSITIONS AND
ITILE OF INVENTION: METHODS OF USE
FILE REPERENCE: 06618/343001
CURRENT APPLICATION NUMBER: US/09/370,098
CURRENT FILING DATE: 1999-08-06
PRIOR FILING DATE: 1998-08-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.2%; Score 264; DB 4;
ilarity 31.5%; Pred. No. 8.7e-19;
Conservative 37; Mismatches 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 6
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  490 WGLAIFTPLGLSTVY---IFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  635 WMSAVLAMTDRRSVLFQALFAVFNSAQGFVI 665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 5, Application US/09370098
Patent No. 6303768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; ORGANISM: Rattus norvegicus US-09-370-098-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 84; Conserv
```

S

g

δ

```
177 LNNRLVGLSV--GQMHVTKLAE-PLEIVFSHQRPPNMTLTCVFWDVTKGTT---GDWSS 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279 SMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAAC 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNT----YFGHYFLKLSLVGWGLPALM 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       231 EGCSTEVRPEGT--VCCCDHLTFFALLL----RPTLDQST-----VHILTRISQAGCGV 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60 RDCEL-VHRNGSHARCRCSRTGTFGVLMDASPRERLEGDLELLAVFTHVVVAVSVA---- 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -WFILLYLPSQSTTVSSSTAR--L 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 884;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 7.4%; Score 213; DB 2; Length 88 Best Local Similarity 24.4%; Pred. No. 1e-12; Matches 96; Conservative 61; Mismatches 163; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: CARELLA, BYRNE, BAIN GILFILLAN, CECCHI ADDRESSEE: STEWART & OLSTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/465,976A
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: SOPPET, DANIEL R
APPLICANT: LI, YI
APPLICANT: LI, YI
APPLICANT: ROSEN, CRAIG A
APPLICANT: RUBEN, STEYEN M
TITLE OF INVENTION: HUMAN G-PROTEIN RECEPTOR
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                               Sequence 2, Application US/08465976A
Patent No. 5869632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 3258(
TELECOMUNICATION INFORMATION:
TELEPHONE: (201) 994-1700
TELEFAX: (201) 994-1744
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 6 BECKER FARM ROAD CITY: ROSELAND STATE: NJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: FERRARO, GREGORY F
REGISTRATION NUMBER: 36,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               884 amino acids
       498 LGLSTVYIFALFNSLQGVFI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 06 CLASSIFICATION:
                                                                                             541 DQAHSASQ 548
                                                                                                                                     877 SSMPSASK 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΩS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-465-976A-2
                                                                                                                                                                                                                            US-08-465-976A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qγ
                                             g
                                                                                             ò
                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 338 CWARGAVFHYFLLCAFTWMGLEAFHLYLLA--VRVFNTYFGHYFLKLSLV---GWGLPAL 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MYIGTGSA--NSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVL 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        443 ECSEENVTLDLVAKGDKMKIGCSTIEESESTETTGVAFVSFVGMESVLNERFFQDHQAPL 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      278 VSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAA 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALVV-----WKIFTL-SRATAVKERGKNRK--KVLTLLGLSSL--VGVTWGLAIFT--P 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73 -----NYEAHLMKEGLTQK-----VNTPF--LKALVQNLST-----NTAEDFYFS 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    324 EDVIPDNKQIQQCQEGTAVKPAYVSFCAQINNIFSVLDKVCENKTTVVSLKNTTESFVPV 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 111 LEPSQVPRQVMKDED---------KPPDRVRLPKSLFRSLPGNRSVVRL 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          384 LKQISMWTKFTKEETSSLATVFLESVESMTLASFWKPSANV-TPAVRAEYLDIESKVINK 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----LNNRLVGLSVGQMHVTK---LAEPLEIVFSHQRPPPNMTL---TCVFWDV-T 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21 QEKPTEGPRNTCLGSNNMYDI----FNLNDKALCFTKCRQSGSDSCNVENLQRYWL--- 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTSEIKLKMNSRVVG---GIMTGEKKDGFSDP--IIYTLENVQPKQKFERPICVSWSTDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KGTTGDWSSEGC-STEVRPEGTVCCCDHLTFFALLLRP---TLDQSTVHILTRISQAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       612 ISLVCLVLAIATFLLCRSIRNH-----NTYLHLHLCVCLLLAKTLFL--AGIHKTDNKTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 886;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     232; Indels
                                                                                                                                                                                                                            APPLICANT: Xu, Hong
APPLICANT: Cohan, Victoria L.
APPLICANT: Cohan, Victoria L.
APPLICANT: Stuart.
Suart.
TITLE OF INVENTION: HUMAN EMR1-LIKE G PROTEIN COUPLED
TITLE OF INVENTION: RECEPTOR
FILE REFERENCE: PF-0550 US
CURRENT APPLICATION NUMBER: US/09/110,116
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FASTSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8.8%; Score 254.5; DB 3; 23.2%; Pred. No. 6.1e-17; tive 84; Mismatches 232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AVTILDIGPGTLFKGPRLGLG------DGSGV----
                               212 GLLFINKESVVMAYLFTTFNAFQGVFI 238
       GLAIFTPLGLSTVYIFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ); OTHER INFORMATION: 784994, GenBank
US-09-110-116-3
                                                                                                                ESULT 8
S-09-110-116-3
Sequence 3. Application US/09110116
Patent No. 6013479
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity 23.29
Matches 155; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORGANISM: HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      724
       491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                177
```

g ò g oy Q

à q ŏ g δ qq ò g ŏ

19;

g ŏ g ŏ

```
Gaps
          165 TAVAILLHYFFLSTFAWLFVQGLHLTRWQVEPRNVDRGAMRFYH-----ALGWGVPAVL 218
                                                                                                                                                                                             258 MNGTMFLLAARTSCSTGQREAKKTSALTLRSSFLLLLLVSASWLFGLLAVNHSILAFHYL 317
                                                                        394 VIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALV 453
                                                                                                                                                        154 V-WKIFTLSRATAVKERGKNRKKVLTLLGLSS-----LVGVTW--GLAIFTPLGLSTVYI 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                448 -VVLALVVWKIFTL-----SRATAVKERGKNRKKVLTLLGLSS--LVGVTWGLAIFT 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               278 VSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAA 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    394 VIGTGSA -- NSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGM ---- 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              338 CWARGAVFHYFLLCAFTWMGLEAFHLYLLA-VRVFNTYFGHYFLK---LSLVGWGLPALM 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ISLVCLALAIATFLLCRAVQNH-----NTYMHLHLCVCLFLAKILFL--TGIDKTDNQTA 54
                                                                                                               219 L-----GLAVGLDPEGYGNPDFCW-----ISVHEPLIWSFA-GPVVLVIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 199; DB 4; Length 23:
Pred. No. 3.6e-12;
' Mismatches 93; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Lin, Yi-Jyun
APPLICANT: Lin, Yi-Jyun
APPLICANT: Benzer, Seymour
APPLICANT: California Institute of Technology
TITLE OF INVENTION: METHUSELAH GENE, COMPOSITIONS AND
FITLE OF INVENTION: METHODS OF USE
FILE REFERENCE: 06618/343001
CURRENT APPLICATION NUMBER: US/09/370,098
CURRENT FILING DATE: 1999-08-06
PRIOR FILING DATE: 1998-08-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lin, Yi-Jyun
Benzer, Seymour
California Institute of Technology
                                                                                                                                                                                                                                                                   318 HAGLCGLQGLAVLLLFCVLNADARAAWMPACLGR 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NOS: 6 FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                           506 FALFNSLQGVFICCWFTILYLPSQSTTVSSSTAR
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6, Application US/09370098
Patent No. 6303768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            207 IGPLASIMAYLFTIINSLQGAFI 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09370098
Patent No. 6303768
GENERAL INFORMATION:
APPLICANT: Lin, Yi-Jyun
APPLICANT: Benzer, Seymour
APPLICANT: California Institute o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    497 -- PLGLSTVYIFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match
Best Local Similarity 27.0°
Matches 71; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: Mus musculus US-09-370-098-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
                                                                                                                                                                                                                                                                                                                                                                   9-860-02-60-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-370-098-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                     οy
                                                                                                          QQ
                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                   g
                                                                                                                                                        ò
                                                                                                                                                                                                                                         Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19;
                                                                              454 V-WKIFTLSRATAVKERGKNRKKVLTLLGLSS-----LVGVTW--GLAIFTPLGLSTVYI 505
  394 VIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALV 453
                                                                                                                     258 MNGTMFLLAARTSCSTGQREAKKTSALTLRSSFLLLLLVSASWLFGLLAVNHSILAFHYL 317
                                       219 L------GLAVGLDPEGYGNPDFCW-----ISVHEPLIWSFA-GPVVLVIV 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         231 EGCSTEVRPEGT--VCCCDHLTFFALLL----RPTLDQST-----VHILTRISQAGCGV 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       177 INNRLVGLSV--GQMHVTKLAE-PLEIVFSHQRPPPNMTLTCVFWDVTKGTT---GDWSS 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60 RDCEL-VHRNGSHARCRCSRIGIFGVLMDASPRERLEGDLELLAVFTHVVVAVSVA---- 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAAC 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .339 WARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNT----YFGHYFLKLSLVGWGLPALM 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 884;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7.4%; Score 213; DB 2; Length 884
24.4%; Pred. No. 1e-12;
Ive 61; Mismatches 163; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: SOPPET, DANIEL R
APPLICANT: LI, YI
APPLICANT: LI, YI
APPLICANT: LI, YI
APPLICANT: ROSEN, STEVEN M
TITLE OF INVENTION: HUMAN G-PROTEIN RECEPTOR
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: HUMAN GENOME SCIENCES, INC.
STERET: 9410 KEY WEST AVENUE
CITY: ROCKVILLE,
                                                                                                                                                                   FALFNSLQGVFICCWFTILYLPSQSTTVSSSTAR 539
                                                                                                                                                                                                          318 HAGLCGLQGLAVLLLFCVLNADARAAWMPACLGR 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PF181PCT2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/982,412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: BROOKES, ANDERS A
REGITRATION NUMBER: 36,373
REFERENCE/DOCKET NUMBER: PF181
TELECOMMUNICATION INFORMATION:
TELEPHONE: (301) 309-8504
INFORMATION FOR SEC ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENTH: 884 amino acids
                                                                                                                                                                                                                                                                                                                   Sequence 2, Application US/08982412
Patent No. 5958729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 7.4%;
Best Local Similarity 24.4%;
Matches 96; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: linear

MOLECULE TYPE: protein

US-08-982-412-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ns
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                                                        RESULT 10
US-08-982-412-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: F
                                                                                                                                                                   206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      115
                                                                                                                     g
ò
                                                                                                                                                                 ŝ
                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
```

14;

```
266 HILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLV 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         432 YITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWG 491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           326 ------NVGSGSKGSDAACWAR--GAVFHYFLLCAFTWMGLEAFHLYLLAVRVF 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        372 NTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYAL 431
                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                   117 HVAVIINYLGHCISLVALLVAFVL--FLRLKSIRCLRN---IIHWNLISAFILRNATWFV 171
                                                                                                                                                                                                                                                                                                                            49;
                                                                                                                                                                                                                                                                                  Length 415;
                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/981,189B FILING DATE: 10-DEC-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/028,144
                                                                                                                                                                                                                                                                                  DB 1;
                                                                                                                                                                                                                                                                               Query Match 6.2%; Score 177.5; DB 1; Best Local Similarity 26.2%; Pred. No. 1.3e-09; Matches 73; Conservative 40; Mismatches 117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  329 LFFVNP-GEDEVSRVVFIYFNSFLESFOGFFVSVFYCFL 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        492 LAIFTPLGLSTV--YIFALFN----SLQGVFICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120 S. LaSalle Street, Suite 1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FITCH, EVEN, TABIN & FLANNERY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: UROCORTIN PEPTIDES NUMBER OF SEQUENCES: 19
CORRESPONDENCE ADDRESS:
ADDRESSEE: FITCH, EVEN, TABIN & FLAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US 60/002, 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REGISTRATION NUMBER: 20,856
REGISTRATION NUMBER: 20,856
REFRENCE/DOCKET NUMBER: 57611
TELECOMMUNICATION INFORMATION:
TELEFAN: 858-552-1311
TELEFAX: 858-552-0095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-981-189B-11; Sequence 11, Application US/08981189B; Patent No. 6214797; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
              TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 13-JUN 1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 11-AUG-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                         LENGTH: 415 amino acids
                                                     TELEFAX: 619-546-9392
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                   619-546-9392
                                                                                                                                                                                    ; MOLECULE TYPE: protein US-08-110-286A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 120 S. La
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60603
                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                     11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              423 REGTIMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKK--VLTLL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      368 VRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSA---NSYGLYTIRDRENRTSLELCW--F 422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         132 EQGFLWSFL-----GPVTFIILCNAVIFVTTVWKL--TQKFSEINPDMKKLKKARALTIT 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                             308 IHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLA 367
                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 231;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Perrin, Marilyn H.
APPLICANT: Chen, Winoping
APPLICANT: Chen, Winoping
APPLICANT: Louis, Kathy A.
APPLICANT: Donaldson, Cynthia J.
APPLICANT: Donaldson, Cynthia J.
TITLE OF INVENTION: CRF RECEPTOR(S)
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSE: Pretty, Schroeder, Brueggemann & Clark
                                                                                                                                                                                                                                                                                                                                                                      6.9%; Score 198.5; DB 4; Length 30.8%; Pred. No. 3.9e-12; tive 26; Mismatches 96; Indels
TITLE OF INVENTION: METHOSELAH GENE, COMPOSITIONS AND TITLE OF INVENTION: METHODS OF USE; FILE REFERENCE: 06618/343001
CURRENT APPLICATION UNMBER: US/09/370,098
CURRENT FILING DATE: 1999-08-06
PRIOR PAPLICATION UNMBER: 60/095,826
PRIOR FILING DATE: 1999-08-07
NUMBER OF SEQ ID NOS: 6
SOFTWARE: FASTESEQ for Windows Version 4.0
SEQ ID NO 4
LENGTH: 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          E: Pretty, Schroeder, Brueggemann & Clark 444 South Flower Street, Suite 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481 GLSS--LVGVTW--GLAIFTPLGLSTVYIFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                185 AIAQLFLLGCTWVFGLFIFDDRSLVLTYVFTILNCLQGAFL 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/110,286A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/079,320
FILING DATE: 18-JUN-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Reiter, Stephen E.
REGISTRATION NUMBER: 31,192
REFERENCE/DOCKET NUMBER: P41 9439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/08110286A Patent No. 5728545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: 444 South CITY: Los Angeles
                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 68; Conserva
                                                                                                                                                                                                                                                                             ; ORGANISM: Homosapiens
US-09-370-098-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
US-08-110-286A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
```

```
US-08-381-433A-2
                                                                                                                                                                                                                                                                                                                                                                   LENGIH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   328 GSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGW 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            194 HEVHEGNEVWCRCITTIFNYEVVTNFFWMFVEGCYLHTAIVMTYSTEHLRKWLFL-FIGW 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         388 GLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGM 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253 CIPCPIIIAWAVGKLY----YEN----EQCWFGKEAGDLVDYI-YQGPVMLVLLINF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            448 VVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTP--LGLSTVYI 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLA-FLVNV-- 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4; Length 431;
                                                                                                                                                                                                                                                                                                                                           Identification of a second corticotropin-releasing factor receptor gene and characterization of a cDNA expressed in heart proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.2%; Score 177.5; DB 4; Length 4
27.8%; Pred. No. 1.4e-09;
Live 41; Mismatches 118; Indels
                                                                                                                  NAME/KEY: Protein
LOCATION: 1.431
OTHER INFORMATION: /note= "Product-mouse heart derived
OTHER INFORMATION: CRF-R2 Long Form"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/08381433A
Patent No. 5786203
GENERAL INFORMATION:
APPLICANT: Lovenberg, Timothy W.
APPLICANT: Oltersdorf, Tilman
APPLICANT: Liaw, Chen
APPLICANT: Liaw, Chen
APPLICANT: Desoura, Errol B.
TITLE OF INVENTION: CORTICOTROPIN RELEASING FACTOR 2
ATTILE OF INVENTION: RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S: SEED and BERRY 5300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Perrin, Marilyn
Donaldson, Cynthia
Chen, Ruoping
Blount, Amy
                                                                                                                                                                                                                                                                         Berggren, Travis
Bilezikjian, Louise
Sawchenko, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              506 FALFN----SLQGVFIC---CWF 521
                                  LENGTH: 431 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 27.89
Matches 73; Conservative
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                             Vale, Wylie
                                                                              MOLECULE TYPE: protein FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                PAGES: 2969-2973
                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                DATE: March-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
STREET: 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-981-189B-11
                                                                TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-381-433A-2
                                                                                                                                                                                                                          AUTHORS:
                                                                                                                                                                                                                                           AUTHORS:
                                                                                                                                                                                                                                                           AUTHORS:
                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                             TITLE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY:
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

```
11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               194 HEVHEGNEVWCRCVTTIFNYEVVTKFFWMFVEGCYLHTAIVMTYSTEHLRKWLFL-FIGW 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   253 CIPCPIIVAWAVGKLY----YEN----EQCWFGKEPGDLVDYI-YQGPIILVLLINF 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448 VVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTP--LGLSTVYI 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLA-FLVNV-- 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          328 GSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGW 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 388 GLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGM 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 6.1%; Score 174.5; DB 1;
Best Local Similarity 27.4%; Pred. No. 2.9e-09;
Matches 72; Conservative 41; Mismatches 119;
                                                                                                                                                                            CONTRACT AFFILENTIAL MANAGER: US/08/381,433A
FILING DATE: 31-JAN-1995
CLASSIFICATION: 435
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: MCMASTERS, David D.
REGISTRATION NUMBER: 33,963
REFERENCE/DOCKET NUMBER: 69068.401C1
TELECOMMUNICATION INFORMATION:
TELEFAX: (206) 622-4900
TELEFAX: (206) 682-6931
TELEFAX: 3723336 SEEDANDBERRY
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search completed: June 11, 2002, 22:25:18
Job time: 3235 sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 506 FALFN----SLQGVFIC---CWF 521
                                                    Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : 431 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: linear
MOLECULE TYPE: protein
ZIP: 98104-7092
COMPUTER READABLE FORM:
```

latrophilin-2 (spl latrophilin-2 (spl latrophilin-2 (spl CL2BB protein - ra CL2BA protein - ra CL2BC protein - ra latrophilin-2, spl latrophilin-2 (spl latrophilin-2 (spl

T18377 T18385 T16611 T17160 T17185 T17185 T18381 T18382 T18382 T18337 T18337 T18337

1397 1420 1463 1463 1347 1347 1407 1407 11487 11412 1435 11435

359.5 369.5 369.5 369.5 369.5 369.5 369.5 369.5 369.5 369.5 369.5 369.5

330 331 332 333 333 334 337 337 444 445 445 445 445

us-09-733-387-44.rpr

```
June 11, 2002, 21:27:38 ; Search time 44.13 Seconds (without alignments) 1195.401 Million cell updates/sec
                                                                                                                                                                                                       1 MATPRGLGALLILLLLPTSG.....STTVSSSTARLDQAHSASQE 549
GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                            fotal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                283138 segs, 96089334 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                           summaries
                                                                  protein search, using sw model
                                                                                                                                                                                                                                            BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 su
                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                      US-09-733-387-44
2878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PIR_71:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                    Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                            Scoring table:
                                                                OM protein
                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                  Run on:
```

ALIGNMENTS

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	CLAAR protein - ra	philin-3 an	, .	philin-3. s	, ,	process s		hilin-3. s	٠,	hilin-3.	, ,	hilin-3 c	latrophilin-3, spl	i m	٠ ۲	'n	latrophilin-3, spl	lpha-latrotoxi	1	atrophilin-1,	, ,	. '	protein -	protein -	protein -	protein - r	protein -	protein -	philin-2 (s
SUMMARIES	ID	T17187	(4)	7.1	83	7	83	T17200	84	7	83	7	83	83	83	84	84	33	T14327	34	T18411	T18413	117158	T17157 .	T17159	T17138	T17149	1714	171	3.7
	Length DB	:	231	273	274	298	299		342	459	503	527	571	240	283	308	351	512	550	580	467	472	420	452	463	466	471	510	515	354
æ	Query Match Len	3.3	3.3	e.	3.3	3.3	ъ. Г	3.3	3.3	3.3	3.3	3.3	3.3	3.2	3.2	3.2 1	3.2	3.2 1	.2	3.2 1	2.9 1	2.9	2.8 1	2.8 1	2.8 1	.7	2.7	.7	.7 1	.5
	Score	83.	83.	83.	83.	83.	83.	383.5	33.	33.	33.	33.	33.	379	379	379	379	379	379	37	370.5	70.	367	367	36	65.	65.	65.	365.5	59.
	Result No.	н	7	m	4	5	9	7	80	6	10	11	12	13	14	15	. 16	17	18	19	20	21	22	23	24	25	56	27	28	59

09:25:15 2002

12

Jun

25;

PIDN: AAC62662.1

```
C;Species: Bos primigenius taurus (cattle)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T18391
R;Matsushita, H; Lelianova, V.G.; Ushkaryov, Y.A.
R;BM tsushita, 348-352, 1999
A;Title: The latrophilin family: multiply spliced G protein-coupled receptors with diak. Reference number: 218869; MUID:99148828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RENRISLELCWFREGITMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR 452
                                                                                                                                                                                                                                                                                                                                                                                                                    77 HIMKEGLIQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------GRNGEIRVAFVLYNNLGPYLSTENASMKLGTEAMSTNHSVIVNSPVIT 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                     239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           843 KTHTTCSCNHLINFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    295 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               184 LSVGQMHVTK - - LAEPLEIVFSH - QRPPPNMTLTCVFWDVTKGT - TGDWSSEGCS - TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               463 ATAV -- KERG -- KNRKK - VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1274;
                                                                                                                                                                                                                                                                                                                   Length 1273;
R;Sugita, S.; Ichtchenko, K.; Khvotchev, M.; Sudhof, T.C. submitted to the EMBL Data Library, July 1998
A;Description: Cf family.
A;Reference number: 218712
A;Accession: T17188
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-1273 <SUG>
A;Cross-references: EMBL:AF081156; NID:93695138; PID:93695139;
C;Superfamily: alpha-latrotoxin receptor, calcium-independent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 1-1274 < MAT>
A; Cross-references: EMBL: AF111087; NID:94164056; PID:94164057;
C; Superfamily: alpha-latrotoxin receptor, calcium-independent C; Keywords: alternative splicing; G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                latrophilin-3, splice variant abah, brain-specific - bovine
                                                                                                                                                                                                                                                                                                                   DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 2;
                                                                                                                                                                                                                                                                                                              13.3%; Score 383.5; DB 2. 27.6%; Pred. No. 2.7e-23; iive 77; Mismatches 182.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13.3%; Score 383.5;
                                                                                                                                                                                                                                                                                                                   Query Match 13.33
Best Local Similarity 27.65
Matches 135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1108 FIFIFHCVL 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: T18391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                  latrophilin-3, splice variant abag, brain-specific - bovine
C; Species: Bos primigenius taurus (cattle)
C; Species: Bos primigenius taurus (cattle)
C; Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C; Accession: T18390
R; Matsushita, H.; Lelianova, V.G.; Ushkaryov, Y.A.
FFBS Lett. 443, 348-352, 1999
FFBS Lett. 443, 348-352, 1999
FFITLE: The latrophilin family: multiply spliced G protein-coupled receptors with diffe
A; Reference number: 218869; MUID: 9914882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
;Residues: 1-1231 <MAT>
;Cross-references: EMAT>
;Cross-references: EMBL:AF111086; NID:94164054; PID:94164055; PIDN:AAD05322.1
C;Superfamily: alpha-latrotoxin receptor, calcium-independent
C;Keywords: alternative splicing; G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLAAC protein - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 04-Mar-2000
C;Accession: T17188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----TDKVCWLRLDT------YFIWSFIGPATLIIMLNVIFLGIALYKMF---H 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1048 HTAILKPESGCLDNIKSWVIGAIALLCLLGLTWAFGLMYINESTVIMAYLFTIFNSLOGM 1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -------GRNGEIRVAFVLYNNLGPYLSTENASMKLGTEAMSTNHSVIVNSPVIT 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 683 NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKQN---- 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         784 AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRIMTGYWSTQGCRLLTIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RENRTSLELCWFREGITMYALYITVHGYFLITF------LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATAV - - KERG - - KNRKK - VLTLLGLSSLVGVTW - - GLAIFTPLGLSTVY IFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 13.3%; Score 383.5; DB 2; Length 1231; Best Local Similarity 27.6%; Pred. No. 2.6e-23; Matches 135; Conservative 77; Mismatches 182; Indels 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-
                                                                                                 FIFIFHCVL 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FIFIFHCVL 1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FICCWFTIL 524
                                                           516 FICCWFIIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1109
                                                                                                           1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QQ
     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                              õ
                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
```

354

PIDN: AAD05323.1

```
1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dp
                                                                                                                                                                                                                                                                                 qq
                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                \Omega
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                             QΥ
                                                                       qq
                                                                                                                            δy
                                                                                                                                                                         d
                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                     Óγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C:Species: Rattus norvegicus (Norway rat)
C:Decies: Rattus norvegicus (Norway rat)
C:Decies: Taling
C:Accession: Taling
R:Sugita, S.; Ichtchenko, K.; Khvotchev, M.; Sudhof, T.C.
submitted to the EMBL Data Library, July 1998
A:Beference number: Z18712
A:Accession: Taling
A:Accession: Taling
A:Status: preliminary; translated from GB/EMBL/DDBJ
A:Accession: Taling
A:Molecule type: mRMA
A:Molecule type: mRMA
A:Molecule type: mRMA
A:Molecule type: Taling
A:Molecul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25;
                             25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1008 ----TDKVCWLRLDT----YFIWSFIGPATLIIMLNVIFLGIALYKMF---H 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ------GRNGEIRVAFVLYNNLGPYLSTENASMKLGTEAMSTNHSVIVNSPVIT 850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :: : | ||::|| 851 AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTQGCRLLTTN 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS----QVPRQVMKDEDKPPDR 130
                                                                            HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                              131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                     239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LSVGQMHVTK - - LAEPLEIVFSH - QRPPPNMTLTCVFWDVTKGT - TGDWSSEGCS - TEVR
                                                                                                                                                                                                                                                                                                                | :|:| : |:| : :|| : :-|-GRNGEIRVAFVLYNNLGPYLSTENASMKLGTEAMSTNHSVIVNSPVIT
                                                                                                                                                                                                                                                                                                                                                                                                                     844 KTHTTCSCNHLTNFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RENRISLELCWFREGITMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                   184 LSVGOMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LSRERFKSEDAPKIHVALGGSLFLLINLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95;
                             95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13.3%; Score 383.5; DB 2; 27.6%; Pred. No. 2.7e-23; tive 77; Mismatches 182;
2.7e-23;
ches 182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-
                       77; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         77; Mismatches
     Pred. No.
  27.68;
                          135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
les 135; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1109 FIFIFHCVL 1117
     Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T17199
CL3BB protein - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Si
Matches 135;
                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     184
                                                                                                                                                                                                                                 736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                               ŏ
                                                                                                                            q
                                                                                                                                                                                                                         Dp
                                                                                                                                                                                                                                                                                 9.
Pb
                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  οy
                                                                                                                                                                              Ω
```

```
C. Specides: Bos primigenius taurus (cattle)
C. Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C. Accession: T18398
E. Matsushita, H.; Lelianova, V.G.; Ushkaryov, Y.A.
F. Matsushita, H.; Lelianova, V.G.; Ushkaryov, Y.A.
F. Matsushita, H.; Lelianova, W.G.; Ushkaryov, Y.A.
A. F. Matsushita, H.; Lelianova, W.G.; Ushkaryov, Y.A.
A. Reference number: 218869; MUID:99148828
A.; Reference number: 218869; MUID:99148828
A.; Status: preliminary; translated from GB/EMBL/DDBJ
A.; Molecule type: mRNA
A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WMGLEAPHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
|| || || || :| || :| || :
|WMFLEGVQLYIMLVEVFESEHSRRKYFY---LVGYGMPALIVAVSAAVDYRSYG----- 1075
                                                                                                                                                                                                                                                                                 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184 LSVGOMHVTK--LAEPLEIVFSH-ORPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRIMTGYWSTQGCRLLTTN 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGGGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HIMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PEGTYCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                   LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 411 RENRISLELCWFREGTIMYALYITVHGYFLITF------LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    latrophilin-3, splice variant bbag, brain-specific - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13.3%; Score 383.5; DB 2; 27.6%; Pred. No. 2.7e-23; tive 77; Mismatches 182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 13.35
Best Local Similarity 27.65
Matches 135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1176 FIFIFHCVL 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     971
```

ďį

us-09-733-387-44.rpr

```
25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIDN: AAC62665.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ci3BC protein - rat
C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Species: T1200
C;Bate: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T17200
R;Sugita, S.; Ichtchenko, K.; Khvotchev, M.; Sudhof, T.C.
Ribmitted to the EMBL Data Library, July 1998
A;Beference number: 218712
A;Accession: T17200
                                                              ----TDKVCWLRLDT-----YFIWSFIGPATLIIMLNVIFLGIALYKWF---H 1116
                                                                                                                                                                             1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RENRISLELCWFREGITMYALYITVHGYFLITF.----LFGMVVLALVVWKIFTLSR 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG------DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ::: | | ||::||
851 AAINKEFSNKVYLADBVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTQGCRLLTTN 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               355 WMGLEAFHLYLLAVRVENTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : |: | : : | | : : | | : : | | : : | | : : | | : : | | : : : | | : : : | | : : : | | : : : : | | : : : : | | : : : | : : : | | : : : | : : : | | : : : | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | | : : : | : : : | : : : | | : : : | : : : | | : : : : | | : : : : | | : : : : | | : : : | : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | | : : : : | : : : | : : : | : : : | : : : | | : : : : | : : | : : : | : : : | : : : | | : : : : | : : : | : : : | : : | :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATAV -- KERG -- KNRKK -VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVXIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          411 RENRISLELCWFREGTIMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463 ATAV -- KERG -- KNRKK - VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVXIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  911 KTHTTCSCNHLTNFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1341;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-1341 <SUG>
A;Cross-references: EMBL:AP081159; NID:93695144; PID:93695145;
C;Superfamlly: alpha-latrotoxin receptor, calcium-independent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Pred. No. 2.8e-23; 77; Mismatches 182; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13.3%; Score 383.5; 27.6%; Pred. No. 2.86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                   1177 FIFIFHCVL 1185
                                                                                                                                                                                                                                                                                FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1176 FIFIFHCVL 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Simi
Matches 135;
                                                                  1076
411
                                                                                                                                        463
                                                                                                                                                                                                                                                                                516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              239
                                                              g
                                                                                                                                    ò
                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                        Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

RESULT

```
latrophilin-3, splice variant bbah, brain-specific - bovine
C; Species: Bos primigenius taurus (cattle)
C; Species: Bos primigenius taurus (cattle)
C; Species: 15-oct-1999 #sequence_revision 15-oct-1999 #text_change 18-Feb-2000
C; Accession: T1840: 14: Lelianova, V.G.; Ushkaryov, Y.A.
FEBS Lett. 443, 348-352, 1999
A; Title: The latrophilin family: multiply spliced G protein-coupled receptors with di A; Reference number: 218869; MUID:99148828
A; Accession: T18405
A; Accession: T18405
A; Accession: T18405
A; Accession: T18405
A; Containary: translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                               25;
                                                                                                                                                                                                                                                                                                   PIDN: AAD05329.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Reference number: 218712
A; Reference number: 218712
A; Accession: T11186
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Residues: 1-1459 <SUG>
A; Cross-references: EMBL: AF081154; NID: 93695134; PID: 93695135; PIDN: AAC62660.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C13AA protein - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T17186
R;Sugita, S;; Ichtchenko, K.; Khvotchev, M.; Sudhof, T.C.
submitted to the EMBL Data Library, July 1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       77 HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        852 AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRIMIGYWSTGGCRLLITH 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 912 KTHTTCSCNHLTNFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF- 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LSRERFKSEDAPKIHVALGGSLFLINLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      294
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTILLYAFLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RENRISLELCWFREGTIMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     463 ATAV -- KERG -- KNRKK - VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    751 NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKON----
                                                                                                                                                                                                                                                                                                                                                                                                Length 1342;
                                                                                                                                                                                                                                             A;Molecule type: mRNA
A;Residues: 1-1342 <MAT>
A;Cross-references: EMBL:AF111093; NID:94164068; PID:94164069;
C;Superfamily: alpha-latrotoxin receptor, calcium-independent
                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                           Query Match 13.3%; Score 383.5; DB 2; Best Local Similarity 27.6%; Pred. No. 2.8e-23; Matches 135; Conservative 77; Mismatches 182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1177 FIFIFHCVL 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
```

셤 δ Dp δ δŽ

```
C.Species: Rattus norvegicus (Norway rat)
C.Species: Rattus norvegicus (Norway rat)
C.Species: Tartus
C.Species: 15-oct-1999 #sequence_revision 15-oct-1999 #text_change 04-Mar-2000
C.Sacession: T17198
C.Sugita. S.; Ichtchenko, K.; Khvotchev, M.; Sudhof, T.C.
Submitted to the EMBL Data Library, July 1998
A; Description: CL family.
A; Reference number: 218712
A; Accession: T17198
A; Accession: T17198
A; Accession: T1719
A; Molecule type: mRNA
A; Molecule ty
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAINKEFSNKVYLADDVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTQGCRLLTTN 910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            77 HIMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                            354
                                                                                                                                                                                                                                                                                                                                            903 ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT 956
                                                                                                                                                                                                                                                                                                                                                                                                                                   355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RENRISLELCWFREGITMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
-GRNGEIRVAFVLYNNLGPYLSTENASMKLGTEAMSTNHSVIVNSPVIT 783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                         ::: | ||::|| | AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTQGCRLLTIN
                                                                                                                                                                                      239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR
                                                                                                                                                                                                                                                                                                            LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            957 WMFLEGVOLYIMLVEVFESEHSRRKYFY---LVGYGMPALIVAVSAAVDYRSYG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1527;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.3e-23;
ches 182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 13.3%; Score 383.5; Best Local Similarity 27.6%; Pred. No. 3.3e Matches 135; Conservative 77; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1109 FIFIFHCVL 1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CL3BA protein - rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239
         38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QΥ
                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                               δ
                                                                                                                         q
                                                                                                                                                                                         \dot{\Omega}
                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                         Óλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ōλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
T18389
Introphilar-3, splice variant abaf, brain-specific - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Date: 1588bit 15889
A;Title: The latrophilin family: multiply spliced G protein-coupled receptors with diffe
A;Recession: T18389
A;Accession: T18389
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-1503 <AMAT>
A;Residues: 1-1503 <AMAT>
A;Cross-references: EMBL:AFI11085; NID:q4164052; PID:q4164053; PIDN:AAD05321.1
C;Superfamily: alpha-latrocoxin receptor, calcium-independent
C;Reywords: alternative splicing: G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           25;
                                                                                                                                                               25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WMFLEGVQLYIMLVEVFESEHSRRKYFY---LVGYGMPALIVAVSAAVDYRSYG----- 1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----TDKVCWLRLDT------YFIWSFIGPATLIIMLNVIFLGIALYKMF---H 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  683 NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKQN----- 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                   HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                         HLMKEGLTOKVNTPFLKALVONLST-NTAEDFYFSLEPS-----OVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RENRISLELCWFREGITMYALYITVHGYFLITF - - - - - - LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1503;
                                                                                                   Length 1459;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                               Indels
            C;Superfamily: alpha-latrotoxin receptor, calcium-independent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13.3%; Score 383.5; DB 2; 27.6%; Pred. No. 3.2e-23; iive 77; Mismatches 182;
                                                                                               ;; Score 383.5; DB 2;
;; Pred. No. 3.1e-23;
77; Mismatches 182;
                                                                                               Similarity 27.6%;
5; Conservative 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 13.39
Best Local Similarity 27.69
Matches 135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  || : :|
FIFIFHCVL 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               516 FICCWFTIL 524
                                                                                               Query Match
Best Local Simi
Matches 135;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11
                                                                                                                                                                                                                                                                                   682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      926
                                                                                                                                                                                                                                                                                                                                                                                                         735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
C;Species: Bos primigenius taurus (cattle)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T18399 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
E;Macsushita, H.; Lelianova, V.G.; Ushkaryov, Y.A.
FEBS Lett. 443, 348-352, 1999
A;Title: The latrophilin family: multiply spliced G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ||||||:|| : :|
|||| NSLQGMFIFIFHCVL 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NSLOGVFICCWFTIL 524
                    || : :|
FIFIFHCVL 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Residues: 1-1240 <MAT>
                                                                                                                                                   13
                                                   1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 diffe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 receptors with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIDN: AAD05327.1
                                                                                                                                                                                      latrophilin-3, splice variant bbaf, brain-specific - bovine
Fyspecies: Bos primigenius taurus (cattle)
- bate: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T18395
   WMGLEAFHLYLLAVRVFNTYFGH -- YFLKLSLVGWGLPALMVIGTGSAN -- SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                971 ----RGLQSDRNTIHKNLCISLEVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77 HLMKEGLTOKVNTPFLKALVQNLST-NTAEDFYFSLEPS----OVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITE TO THE TOTAL TO THE TOTAL T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRIMTGYWSTQGCRLLTTN 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                     RENRTSLELCWFREGTTMYALYITVHGYFLITF------LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                     ATAV -- KERG -- KNRKK - VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVY IFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                912 KTHTTCSCNHLTNFAVLAMHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WMFLEGVQLYIMLVEVFESEHSRRKYFY---LVGYGMPALIVAVSAAVDYRSYG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    411 RENRTSLELCWFREGTTMYALYITVHGYFLITF------LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATAV -- KERG -- KNRKK - VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FMESS Lett. 443, 348-352, 1999
A.71tle: The latrophilin family: multiply spliced G protein-coupled A.71tle: The latrophilin family: multiply spliced G protein-coupled A.7 Reference number: 218869; MUID:99148828
A.7 Accession: T18395
A.7 Status: preliminary; translated from GB/EMBL/DDBJ
A.Molecule type: mRNA
A.Molecule type: mRNA
A.7 Status: DATI-CANATA
A.7 COSS-references: EMBL.AF111091; NID:94164064; PID:94164065; PIDN:
C.5 Superfamily: alpha-latrotoxin receptor, calcium-independent
C.7 Keywords: alternative splicing; G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1571;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 13.3%; Score 383.5; DB 2; Best Local Similarity 27.6%; Pred. No. 3.4e-23; Matches 135; Conservative 77; Mismatches 182;
                                                                                                                                                                                                                                                                                                                                                                                                                                             (| : :|
FIFIFHCVL 1184
                                                                                                                                                                                                                                                                                                                                                                                                    FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12
                                                                                                                                                                                                   1075
                                                                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1176
                                                                                                                                  411
                                                                                                                                                                                                                                                                                                                                                                                                    516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       463
ò
                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                           g
                                                                                                                               ò
                                                                                                                                                                                                                                                                     å
                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Op
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       å
```

```
R;Matsushita, H.; Lelianova, V.G.; Ushkaryov, Y.A.
FEBS Lett. 443, 348-352, 1999
A;Title: The latrophilin family: multiply spliced G protein-coupled receptors with di
A;Reference number: 218869; MUID:99148828
A;Accession: T18393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: EMBL:AP111089; NID:94164060; PID:94164061; PIDN:AAD05325.1
C;Superfamily: alpha-latrotoxin receptor, calcium-independent
C;Keywords: alternative splicing; G protein-coupled receptor
                                                                      C;Species: Bos primigenius taurus (cattle)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C;Accession: T18393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ::|| | | ::|| | | ::|| | ::|| | | ::|| | ::|| | ::|| | ::|| | | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | ::|| | :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1052 ILKPESGCLDNINYEDNRPFIKSWVIGAIALLCLLGLTWAFGLMYINESTVIMAYLFTIF 1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77 HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  844 KTHTTCSCNHLTNFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF- 902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----TLSRATAVKERGKNRKKVLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALF 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      683 NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKQN-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                784 AAINKEFSNKVYLADPVVFTVKHIKOSEENFNPNCSFWSYSKRIMTGYWSTQGCRLLTTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEGIVCCCDHLTFFALLLR.-PILDQSTVH.-ILTRISQAGCGVSMIFLAFIILYAFLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            411 RENRTSLELCWFREGTTMYALYITVHGYFLITF-----LFGMVVLALVVWKIF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 1240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match 13.2%; Score 379; DB 2; Length 12 Best Local Similarity 26.5%; Pred. No. 6.1e-23; Matches 131; Conservative 77; Mismatches 189; Indels
latrophilin-3, splice variant abbg, brain-specific - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            latrophilin-3, splice variant abbh, brain-specific - bovine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: mRNA
```

protein-coupled receptors with di

```
1025
                                                                                                                                                                                                                                                                                                                                                                                                                             411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1180
                                                                                                                                                       184
                                                                                                                                                                                      852
                                                                                                                                                                                                                        239
                                                                                     131
                                                                                                                                                                                                                                                                                        295
                                                                                                                                                                                                                                                                                                                          971
                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   510
                   11
                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                              g
                                                                                   οy
                                                                                                              g
                                                                                                                                              ò
                                                                                                                                                                                     q
                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                   Db
                                                                                                                                                                                                                                                                                        Qγ
                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      latrophilin-3, splice variant bbbg, brain-specific - bovine
C; Species: Bos primigenius taurus (cattle)
C; Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 18-Feb-2000
C; Accession: T18408
R; Matsushita, H.; Lelianova, V.G.; Ushkaryov, Y.A.
R: FBBS Left. 443, 348-352, 1999
A; Title: The latrophilin family: multiply spliced G protein-coupled receptors with diffe A; Reference number: Z18869; MUID: 99148828
A; Accession: T18408
A; Accession: T18408
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Mesidues: 1-1308 < AMPA
A; Residues: 1-1308 < AMPA
A; Residues: 1-1308 < AMPA
A; Cross-references: EMBL: AFILI095; NID: 94164072; PID: 94164073; PIDN: AAD05331.1
C; Superfamily: alpha-latrocoxin receptor, calcium-independent
C; Superfamily: alpha-latrocoxin receptor.
                                                                                                                                                                                                        22;
1052 ILKPESGCLDNINYEDNRPFIKSWVIGAIALLCLLGLTWAFGLMYINESTVIMAYLFTIF 1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     844 KTHTTCSCNHLTNFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF- 902
                                                                                                                                                                                                                                        HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                        NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKQN---- 735
                                                                                                                                                                                                                                                                                                            131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                              184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                               PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                 :::|||::||
AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTQGCRLLTTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----TLSRATAVKERGKNRKKVLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RENRTSLELCWFREGTTMYALYITVHGYFLITF-----LFGMVVLALVVWKIF---
                                                                                                                                                                                                        98;
                                                                                                                                                                        Length 1283;
                                                                                                                                                                       13.2%; Score 379; DB 2; Length 12 ilarity 26.5%; Pred. No. 6.3e-23; Conservative 77; Mismatches 189; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1112 NSLQGMFIFIFHCVL 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          510 NSLQGVFICCWFTIL 524
                                                                                                                                                                       Query Match
Best Local Similarity
Matches 131; Conserv
                                                                                                                                                                                                                                                                        683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 295
                                                                                                                                                                                                                                                                                                                                            736
                                                                                                                                                                                                                                                                                                                                                                                                             784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        459
                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                          QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               οý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
1120 ILKPESGCLDNINYEDNRPFIKSWVIGAIALLCLIGLTWARGLMYINESTVIMAYLFTIF 1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                   912 KTHTTCSCNHLINFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF- 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RENRISLELCWFREGIIMYALYITVHGYFLITF------LFGMVVLALVVWKIF---- 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----TLSRATAVKERGKNRKKVLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALF '509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                        LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                    :: : | ||:|: | | || || AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRTWTGYWSTQGCRLLTTN 911
HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                           VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                          PEGIVCCCDHLIFFALLER -- PILDQSTVH -- ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NSLQGVFICCWFTIL 524
```

Search completed: June 11, 2002, 22:24:34 Job time: 3416 sec

22;

Gaps

Query Match 13.2%; Score 379; DB 2; Length 1308; Best Local Similarity 26.5%; Pred. No. 6.5e-23; Matches 131; Conservative 77; Mismatches 189; Indels 98;

```
GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
```

OM protein - protein search, using sw model

June 11, 2002, 22:23:31; Search time 25.32 Seconds (without alignments) 839.535 Million cell updates/sec Run on:

US-09-733-387-44
2878
1 MATPRGLGALLLLLLLPTSG.....STTVSSSTARLDQAHSASQE 549 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

Searched:

105224 Motal number of hits satisfying chosen parameters: 105224 seqs, 38719550 residues

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt_40:* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		014514 homo sapien	960 homo	m snm	1 hom	homo	homo	ovis	mus m	mus	ratt		Q16983 acheta dome	P34998 homo sapien		xenopus	gallūs	Q9gt50 drosophila		Q13324 homo sapien	_			097148 drosophila		Q9v817 drosophila	-		-			s sns	xd	
SUMMARIES	ID	AIJ	CD97_HUMAN	EMR1_MOUSE	BAI2_HUMAN	BAI3_HUMAN	EMR1_HUMAN	CRF1_SHEEP	CRF2_MOUSE	CRF1_MOUSE	CRF2_RAT	CRF1_RAT	DIHR_ACHDO	CRF1_HUMAN	CRF1_XENLA	CRF2_XENLA	CRF1_CHICK	MTH_DROYA	GLP2_RAT	CRF2_HUMAN	MTH_DROSI	MTH3_DROME	DIHR_MANSE	MTH_DROME	GLP2_HUMAN	MTH4_DROME	VIPR_CARAU	PTH2_RAT	PTRR_DIDMA	CALR_CAVPO	PTR2_HUMAN	PTRR_PIG	MTH1_DROME	PTRR_HUMAN
	DB	Н	Н	Н	Н	Н	П	7	٦	Н	-	н,	-	-	-	⊣.	Н	Н,	-	٦,	-1	Н.	Н.	Η,	→ ,	٦.	⊣,	-	н.	Н	Н	Н	-	7
	Length		835	931	1572	1522	886	415	431	415	411	415	441	444	415	413	420	517	550	411	515	458	395	514	553	468	447	546	585	478	220	282	929	593
ď	Ouery Match	10.				9.4				•	٠	•	•	•	•	•	•	•	•	•				5.2		•				•			4.9	4.8
	Score	3	311	280.5	277		254.5	179.5	177.5		173.5	7,	108	166	165	161.5	161.5	161	٦,	157.5	157	Ф.	152.5	٦,	149.0	•	148.5	148.5	148.5	140.5	~		140	m
	Result No.	ч	7	m ·	4	ı,	9	7	ω (ວ ເ	10	Ţ	77	£ †	44	15	16	17	90 6	19	20	77	77	23	7 0	0 1	910	770	D 0	7.7	30	3.1	32	33

	P25117 sus scrofa P41588 mus musculu P79222 orytetolagus		
VIPS_RAT CGRR_RAT GLP1 MOUSE	CALR_PIG VIPS_MOUSE CALR_RABIT CGRR_HIMAN	GIPR_HUMAN GLP1_HUMAN PACR_HUMAN	PTRR_MOUSE PTRR_RAT
		. – – –	пп
437 464 489	498 437 474 461	466 463 468	591 591
4.8	4 4 4 4 C C C 6	444	4.5
137.5 136.5 135.5	135 134 134 132.5	132 130.5 130.5	130 130
34 35	33 39 40	41 42 43	44 45

ALIGNMENTS

RESULT TO THE PROPERTY OF THE		Selid all email to itcensetisD'siD.cn). EMBL, AB005297; BAA23647.1;
---	--	--

```
21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NECESSARY FOR INTERACTION WITH BAP1.
INDISPENSABLE FOR INTERACTION WITH BAP1.
N-LINKED (GLCNAC. . ) (POTEWITAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VONLSTNTAEDFYFSLEPSQVPRQVMKDEDKPPDRVRLPKSLFRS--LPGNRSVVRLAVT 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  773 IHKLPASGATDISFPMKGWRATGDWAK---VPEDRVTVSKSVFSTGLTEADEASVFVVGT 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          154 ILDIGPCTLFKGPRLGLGDGSGVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPPNMTL 213
                                                                                                                                                                                                                                                       BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VLYRNLGSF - - - - LALQRNTTVLNSKVISVTV - KPPPRSLRTPLEIEFAHMY - - - NGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --TCVFWDVTKGTT-----GDWSSEGCST-EVRPEGTVCCCDHLTFFALLLR----PT
                                                                                                                                                                                                                     Transmembrane; Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10.8%; Score 312; DB 1; Length 1584; 25.8%; Pred. No. 2.9e-15; cive 70; Mismatches 180; Indels 100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CELL ATTACHMENT SITE (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1584;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NKED (GLCNAC. . .) (POT DEA8F28C77874513 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                    2 (POTENTIAL)
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                    4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                          5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                         CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                       CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL).
                                                                                                                                                          FALSE_NEG.
                                                                                                                                                                                                                                                                              (POTENTIAL).
                                                                                                                                                                                                                                                                                                                             (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE-1 3.
                                                                                                                                                       PROSITE; PS00649; G_PROTEIN_RECEP_F2_1; PROSITE; PS00650; G_PROTEIN_RECEP_F2_2; PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; PROSITE; PS50092; TSP1; 5.
G-protein coupled receptor; Transmembran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE-1
TYPE-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POLY - PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLY - PRO
                                                hormn_receptor
           GPCR_secretin.
                      PKD_cys_rich.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 TSP
TSP
TSP
TSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        173531
                              InterPro; IPR000884; TSPI...
InterPro; IPR001879; hormn-
Pfam; PP00002; 7tm_2; 1.
Pfam; PF01825; GPS; 1.
Pfam; PF02793; HRW; 1.
Pfam; PR00009; tsp_1; 5.
SMART; SM00008; HORMS; 1.
SMART; SM00009; TSPI; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 10.8
Best Local Similarity 25.8
Matches 122; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1584
64
401
607
692
                                                                                                                                                                                                                                                                                                                                                                                                 1157
1166
1187
1584
316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1422
                                                                                                                                                                                                                               Cell adhesion
        InterPro; IPR000832;
InterPro; IPR000203;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                             PROSITE;
                                                                                                                                                                                                                                                                               TRANSMEM
                                                                                                                                                                                                                                                                                                        TRANSMEM
                                                                                                                                                                                                                                                                                                                                                     PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                          RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                             SIGNAL
                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   830
셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                           Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.

-! FUNCTION: COULD BE A RECEPTOR POTENTIALLY INVOLVED IN BOTH
ADHESION AND SIGNALING PROCESSES EARLY AFTER LEUKOCYTE ACTIVATION.
-! SUBCELLULAR LOCATION: Integral membrane protein.
-! SIMILARITY: CONTAINS 5 EGF-LIKE DOMAINS.
-! SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
-! SIMILARITY: CONTAINS 1 GPS DOMAIN.
-! SIMILARITY: CONTAINS 1 GPS DOMAIN.
-! DATABASE: NAME-PROW: NOTE-CD guide CD97 entry;
WWW-"http://www.ncbi.nlm.nih.gov/prow/cd/cd97.htm".
                                                                                                                                                                                                                  1042 GHLRNRLIRKRFLCL---GWGLPALVVAISVGFTKAKGY------STMNYCWLSL 1087
260 LDQSTVHILTRISQAGCGVSMIFLAFTIILYA----FLRLSRERFKSEDAPKIHVALGGS 315
                                                                                    316 LFLLNLAF-----LVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAV 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            has generated a new
to the secretin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hamann J., Eichler W., Hamann D., Kerstens H.M.J., Poddighe P.J., Hoovers J.M.N., Hartmann J.M., Strauss M., van Lier R.A.W.;
"Expression cloning and chromosomal mapping of the leukocyte activation antigen CD97, a new seven-span transmembrane molecule of the secretion receptor superfamily with an unusual extracellular
                                      941 MEKATLPSVTLI--VGCGVSSLTLLMLVIIYVSVWRYIRSER-------S
                                                                                                                             982 VILINFCLSIISSNALILIGQTQTRNKVMCTLVAAFLHFFFLSSFCWVLTEAWQSYMAVT
                                                                                                                                                                                                                                                                424 EGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                         369 -RVFNTYFGHYFLKLSLVGWGLPALMV---IGTGSANSYGLYTIRDRENRTSLELCWFR-
                                                                                                                                                                                                                                                                                                                                                                                              1136 LWSSCVVLPLLALTWMSAVLAVTDRRSALFQILFAVFDSLEGFVIVMVHCIL 1187
                                                                                                                                                                                                                                                                                                                                                    484 ------SLVGVTWGLAIFTPLGLSTV---YIFALFNSLQGVFICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hamann J., Hartmann E., van Lier R.A.W.;
"Structure of the human CD97 gene: exon shuffling
type of seven-span transmembrane molecule related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE-95363161; Pubmed-7636245;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Foreskin;
MEDLINE=96230339; PubMed=8786105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Immunol. 155:1942-1950(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-FEB-1996 (Rel. 33, Created)
30-MAY-2000 (Rel. 39, Last seq
01-MAR-2002 (Rel. 41, Last anno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     receptor superfamily.";
Genomics 32:144-147(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Leucocyte antigen CD97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CD97_HUMAN
P48960;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REVISIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hamann J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          domain."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CD97_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                              Ωp
                                                                                                                             g
                                                                                                                                                                           ò
                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                  à
```

3

```
175 GVLNNRLVGLS---VGQMHVTKLAEPLEIVFSHQR--------PPPNMTLTC -215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLPALMVIGTGSA----NSYGLYTIRDRENRTSLELCW--FREGTTMYALYITVHGYFLIT 442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FLFGMYVLALVVWKIFTLSRATAVKERGKNRKK--VLTLLGLSS--LVGVTW--GLAIFT 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      269 TRISQAGCGVSMIFLAFTIILYAFLR-LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | |:: | :|: | |:: | |: : :| : | : | | | |: : ||: : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 328 GSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus (Mouse).
Sukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
EMRI_MOUSE
TO MAIN_MOUSE STANDARD; PRT; 931 AA.
AC 061549;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 01-MAR-2002 (Rel. 41, Last annotation update)
DE Cell surface 91ycoprotein EMR1 precursor (EMR1 hormone receptor)
GN EMR1 OR GPF480.
                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10.8%; Score 311; DB 1; Length 835; 27.8%; Pred. No. 1.6e-15; tive 45; Mismatches 158; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-LINKED (GLCNAC. . .) (P. MISSING (IN REF. 1).
050672E7A4C12A9E CRC64;
            BY SIMILARITY.
CONTROL GLUNAC.
CONTROL GLUNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  497 PLGLSTVYIFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | |:| : | || |:
DRSLVLTYVFTILNCLOGAFL 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
ММ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                  68
93
120
120
127
144
164
164
220
237
33
33
371
406
413
453
453
453
453
453
453
453
453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best_Local Similarity
Matches 106; Conserv
                                                                                                                               DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
               DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 388
                  PTT LEAT BET LEAT BET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOPLASMIC (POTENTIAL).
EGF-LIKE 1.
EGF-LIKE 2. CALCIUM-BINDING (POTENTIAL).
EGF-LIKE 3. CALCIUM-BINDING (POTENTIAL).
EGF-LIKE 4. CALCIUM-BINDING (POTENTIAL).
EGF-LIKE 5. CALCIUM-BINDING (POTENTIAL).
EGF-LIKE 5. CALCIUM-BINDING (POTENTIAL).
EGF-LIKE 5. CALCIUM-BINDING (POTENTIAL).
ENS SAMILARITY.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R InterPro; IPR000152; Asx_hydroxyl.
R InterPro; IPR000152; BGF_like.
InterPro; IPR001081; EGF_like.
R InterPro; IPR001081; EGF_Ca.
InterPro; IPR0010812; EGF_Ca.
R InterPro; IPR0010812; EGF_Ca.
R Pfam; PF000082; FGF; 2.
Pfam; PF01825; GPS; 1.
Pfam; PF01825; GPS; 1.
R PRINTS; PR001249; GPCRECRETIN.
SMART; SM00179; EGF_CA; 4.
SMART; SM00179; EGF_CA; 4.
R PROSITE; PS00101; ASX_HYDROXYL; 4.
R PROSITE; PS00101; ASX_HYDROXYL; 4.
R PROSITE; PS01187; EGF_CA; 4.
R GFFILKe domain; Repeat; Signal.
R GFFILKe domain; Repeat; Signal.
R GFFILKe domain; Repeat; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LEUCOCYTE ANTIGEN CD97.
EXTRACELLULAR (POTENTIAL).
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXTRACELLULAR (POTENTIAL)
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL).
send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL
                                                                                                                                  EMBL, X94632; CAA64333.1; JOINED. EMBL, X94632; CAA64333.1; JOINED. EMBL, 29983; CAA64333.1; JOINED. EMBL, 29983; CAA64333.1; JOINED. EMBL, X94634; CAA64333.1; JOINED. EMBL, X94635; CAA64333.1; JOINED. EMBL, X94636; CAA64333.1; JOINED. EMBL, X94639; CAA64333.1; JOINED. EMBL, X94649; CAA64333.1; JOINED. EMBL, X94641; CAA64333.1; JOINED. EMBL, X94642; CAA64333.1; JOINED. EMBL, X94645; CAA64333.1; JOINED. EMBL, X94645; CAA64333.1; JOINED. EMBL, X94645; CAA64333.1; JOINED. EMBL, X94645; CAA64333.1; JOINED. EMBL, X94646; CAA64333.1; JOINED. EMBL, X94647; CAA64333.1; JOINED.
                                                EMBL; X84700; CAA59173.1;
EMBL; X94630; CAA64333.1;
EMBL; X94631; CAA64333.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCR_2113; -. GCR_2382; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCR_1063;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MIM; 601211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
DISULFID
DISULFID
                                                                                                                   EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCRDb;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCRDb;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCRDb;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHAIN
```

18;

601

```
DOMAIN
                                                                                                                  DOMAIN
                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           461
           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δy
                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its muse by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                -1- SUBCELLULAR LOCATION: Integral membrane protein.
-1- TISSUE SPECIFICITY: IN MACROPHAGES; MUT ABSENT FROM THOSE WHICH
ARE LOCALIZED WITHY T-CELL AREAS OF LYMPH NODES AND SPLEEN.
LOW LEVEL OF EXPRESSION ON BLOOD MONOCYTES.
-1- SIMILARITY: CONTAINS 7 BGF-LIKE DOWAINS.
-1- SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
-1- SIMILARITY: CONTAINS 1 GPS DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00650; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
G-protein coupled receptor; Transmembrane; Receptor; Glycoprotein;
                                                             "Molecular cloning of F4/80, a murine macrophage-restricted cell surface glycoprotein with homology to the G-protein-linked transmembrane 7 hormone receptor family."; Biol. Chem. 271:486-489(1996).
SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-Peritoneal cavity;
MEDLINE-96132946; PubMed-8550607;
MCKNight A.J., Macfarlane A.J., Dri P., Turley L., Willis A.C.,
Gordon S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CELL SURFACE GLYCOPROTEIN EMRI EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                            HSSP; P07204; 1FGD.
GCRDD; GCR_1309;
MGD; MGI:106912; Emrl.
InterPro; IPR000152; Aax_hydroxyl.
InterPro; IPR001881; EGF_11ke.
InterPro; IPR01881; EGF_Recretin.
InterPro; IPR000832; GFCR_secretin.
InterPro; IPR000832; GFCR_secretin.
Ffan; PP00008; EGF; 6.
PFan; PP01825; GPS; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR01128; EMRIHORMONER.
SMART; SM00179; EGF_CA; 6.
SMART; SM00101; EGF_Like; 1.
PROSITE; PS00103; GPS; 1.
PROSITE; PS01186; EGF_2; 1.
PROSITE; PS01186; EGF_2; 1.
PROSITE; PS01186; EGF_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Signal
                                                                                                                                                                                                                                                                                                                                                                     EMBL; X93328; CAA63720.1; -. EMBL; U66888; AAC53184.1; -. HSSP; P07204; 1FGD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G-protein coupled
EGF-like domain;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
```

```
19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SEVSKLKD-----TRLLIFFKAIAQIFILGCS#VLGIFQIGPLASIMAYLFTIINSLQGA 883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      177 LINIRLVGLSVGQMHVTKLAEPLEIVFSHQRPPPNMTL-TCVFWDVTKGTTGDWSSEGCS- 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      235 TEVRPEGTVCCCDHLTFFALLLRP---TLDQSTVHILTRISQAGCGVSMIFLAFTIILYA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVW----KIFTL 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -SRATAVKERGKNRKKVLTLLGLSS--LVGVTWGLAIFT--PLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             292 FLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        352 AFTWMGLEAFHLYLLA--VRVFNTYFGHYFLK---LSLVGWGLPALMVIGTGSA--NSYG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                         CELL ATTACHMENT SITE (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 931;
                                                                                                            CALCIUM-BINDING (
CALCIUM-BINDING ()
CALCIUM-BINDING ()
CALCIUM-BINDING ()
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED (GLCNAC. .) (PO. 52963A667E8B76B5 CRC64;
                   POTENTIAL.
CYTOPLASMIC (POTENTIAL).
EGF-LIKE 1.
EGF-LIKE 2.
EGF-LIKE 3, CALCIUM-BINDIN
EGF-LIKE 4, CALCIUM-BINDIN
EGF-LIKE 6, CALCIUM-BINDIN
EGF-LIKE 6, CALCIUM-BINDIN
EGF-LIKE 7, CALCIUM-BINDIN
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9.7%; Score 280.5; DB 1; 27.6%; Pred. No. 3.4e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57; Mismatches 152;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
(GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY.
SIMILARITY.
SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY
SIMILARITY
                                                                                                                                                                                                                                                                                                                                   SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY
                                                                                                                                                                                                                                                                                SIMILARITY
                                                                                                                                                                                                                                                                                                           SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY
                                                                                                                                                                                                                                                                                BY SIMILAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          102129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 27.69
Matches 100; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474
498
706
931 AA;
                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                           RANSMEM
                                                                                                                                                                                                                                                                                    DISULFID
```

S

```
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BAI3_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δÿ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PT AC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Óχ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                       BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G-protein coupled receptor; Transmembrane; Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 (POTENTIAL)
EXTRACELLULAR (POTENTIAL)
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL).
                                                                                                                                                                        16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
01-MRA-2002 (Rel. 41, Last annotation update)
Brain-specific anglogenesis inhibitor 2 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS50221; GPS; 1.
PROSITE; PS0649; G_PROTEIN_RECEP_F2_1; FALSE_NEG. PROSITE; PS06650; G_PROTEIN_RECEP_F2_2; FALSE_NEG. PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50092; TSP1; 4.
                                                                                                                                         1572 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR000832; GPCR_secretin.
InterPro; IPR00084; TSP1.
InterPro; IPR00084; TSP1.
InterPro; IPR00184; TSP1.
InterPro; IPR01879; horm_receptor.
Pfam; PF01825; GPS; 1.
Pfam; PF01825; GPS; 1.
Pfam; PF01825; GPS; 1.
Pfam; PF01825; GPS; 1.
SMART; SM00303; GPS; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AB005298; BAA25362.1; -.
                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SM00209; TSP1; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
1572
924
945
953
974
982
1003
                                                                                                                                                                                                                                                                  sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           946
954
975
983
1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            602683;
         517
                                            885
                                                                                                                                      BAI2_HUMAN
060241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
                                            FI
         516 FI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Repeat.
SIGNAL
                                                                                                            BAIZ_HUMAN

ID BAIZ_HUMAN

ID BAIZ_HI

DT 16-0CT

I16-0CT

I16-0CT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                            884
                                          Dp
         ŏ
```

```
964 ILASNILILVGOSRVLSKGVCTMTAAFLHFFFLSSFCWVLTEAWQSYLAVIGRMRTRLVR 1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1024 KRFLCL---GWGLPALVVAVSVGFTRTKGYG------TSSYCWLSLEGGLLYAFV 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             318 LLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAV-RVFNTYFG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 377 HYFLKLSLVGWGLPALMV---IGTGSANSYGLYTIRDRENRTSLELCWFR-EGTTMYALY 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               433 ITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLL------ 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118 RQVMKDEDK-PPDRVRLPKS-LFRSLPGNRSVVRLAVTI-LDIGPGTLFKGP-----RLG ·169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       170 LGDGS-----GVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPP-----PNMTLT-- 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    262 QSTVHILTRIS---QAGCGVSMIFLAFTIILY-AFLRLSRERFKSEDAPKIHVALGGSLF 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  912 -LTLELAGSPSVPLVIGCAVSCMALLTLLAIYAAFWRF----IKSE---RSIILLNFCLS 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57; Mismatches 187; Indels 102; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLSS------IFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           852 YIINGTTDPHCASWDYSRADASSGDWDTENCQTLETQAAHTRCQCQHLSTFAVLAQPPKD
                                                                                                                                                                                                                                                                                               N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----CVFWDVTK--GTTGDWSSEGCST-EVRPEGIVCCCDHLIFFALLLRPTLD
                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1572;
 4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                            6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                              5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                          (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9.6%; Score 277; DB 1; 27.6%; Pred. No. 1.1e-12;
                                                                                                                          TSP TYPE-1 1.
TSP TYPE-1 2.
TSP TYPE-1 3.
TSP TYPE-1 4.
GPS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DATA HUMAN STANDARD; PRT; 1522 AA 060242; 060297; 16-0CT-2001 (Rel. 40, Created) 16-0CT-2001 (Rel. 40, Last sequence update)
                                                                                           7 (POTENTIAL)
CYTOPLASMIC (1
                                                                                                                                                                                                                     POLY-ASN.
POLY-THR.
POLY-PRO.
POLY-GLY.
                                                                                                                                                                                                      POLY-GLU
                                                                                                                                                                                                                                                                                       POLY - PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                 171140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 132; Conservative
AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
                                                                            DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                             FRANSMEM
                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                DOMAIN
                                                                                                            DOMAIN
                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                       DOMAIN
```

```
VARSPLIC
SEQUENCE
                                                              DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VARSPLIC
                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                         RANSMEM
                                                                                                                               RANSMEM
                                                                                                                                                                                                                         FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
RANSMEM
                                                                                                                                                                           FRANSMEM
                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1049
ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                           MEDLINE-98194217; PubMed-9533023; Shiratsuchi T., Nishimori H., Ichise H., Nakamura Y., Tokino T.; Shiratsuchi T., Nishimori H., Ichise H., Nakamura Y., Tokino T.; "Cloning and characterization of BAI2 and BAI3, novel genes homologous to brain specific angiogenesis inhibitor 1 (BAI1)."; Cytogenet. Cell Genet. 79:103-108(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUPPRESSION OF GLIOBLASTOMA.

SUBCELLULAR LOCATION: Integral membrane protein.

SUBCELLULAR LOCATION: Integral membrane protein.

ALTERNATIVE PRODUCTS: 2 ISOPORMS; A LONG FORM (SHOWN HERE) AND A SHORT FORM; MAX BE PRODUCED BY ALTERNATIVE SPLICING.

TISSUE SPECIFITY: STRONGLY EXPRESSED IN BRAIN. ALSO DETECTED IN HEART. REDUCED EXPRESSION IS OBSERVED IN SOME GLIOBLASTOMA CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ж
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins in vitro.";

DNA Res. 5:31-39(1998).

-I- FUNCTION: MIGHT BE INVOLVED IN ANGIOGENESIS INHIBITION AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS. SIMILARITY: CONTAINS 1 CUB DOWNIN.
SIMILARITY: CONTAINS 4 TSP TYPE-1 DOMAINS.
SIMILARITY: CONTAINS 1 GPS DOMAIN.
                                                                Homo sapiens (Human).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBL_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PSS0261; G_PROTEIN_RECEP_F2_4; I.
PROSITE; PSS0092; TSP1; 4.
G-protein coupled receptor; Transmembrane; Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                                                               MEDIINE-98290545; PubMed-9628581;
Nagase T., Ishikawa K.-I., Miyajima N., Tanaka A., Kotani H.,
Nomura N., Ohara O.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PS50221; GPS; 1.
$500649; G_PROTEIN_RECEP_F2_1; FALSE_NBG.
PS00569; G_PROTEIN_RECEP_F2_2; FALSE_NBG.
PS50227; G_PROTEIN_RECEP_F2_3; 1.
01-MAR-2002 (Rel. 41, Last annotation update)
Brain-specific angiogenesis inhibitor 3 precursor.
BAI3 OR KIAA0550.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro; IPR000859; CUB.
InterPro; IPR000832; GPCR_secretin.
InterPro; IPR000832; PKD_CyS_rich.
InterPro; IPR000804; TSP1.
InterPro; IPR0018079; Normo_receptor.
Pfam; PF000002; 7tm_2; 1.
Pfam; PF000002; 7tm_2; 1.
Pfam; PF00090; tSP_1; 4.
SMART; SM00009; HSP1; 4.
SWART; SM00009; HORME; 1.
SWART; SM00009; HORME; 1.
SWART; SM00009; HORME; 1.
                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (SHORT ISOFORM)
                                                                                                                                                                             SEQUENCE FROM N.A. (LONG ISOFORM). TISSUE-Fetal brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AB005299; BAA25363.1; -. EMBL; AB011122; BAA25476.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Repeat; Alternative splicing. signat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1522
880
                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE;
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE;
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
  PETTY WAS A STANKE STAN
```

```
23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FTRTKGYG------TDHYCWLSLEGGLLYAFVGPAAAVVLVNMVIGILVFNKLV- 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | | : :: |:| | : ----SRDGILDKKLKHRAGQMSEPHSGLTLKCAKCGVVSTTALSATTASNAMASLWSSC 1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ----FLRLSRERFKSEDAPKIHVALGGSLFLLNLA-----FLVNVGSGSKGSDAACWA 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LPALVVATSVGFTRTKGY -> KHIDIPFHALLKMTLNTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               129 DRVRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGD--GSGVLNNRLVGLSV 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---VVTIRPEPKTIDSFLEIELAHL---ANGTLNPYCVLWDDSKINESLGTWSTQGCKTV 842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               397 IGSANSYGLYIIRDRENRISLELCWFR-EGTIMYALYIITVHGYFLITFLFGMVVLALVVW 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901 ALWRYIRSER------SIILINFCLSIISSNILILVGQTQTHNKSICTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187 GOMHVTKLAEP-----LEIVFSHQRPPPNMTLT--CVFWD--VTKGTTGDWSSEGCSTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237 VRPEG-TVCCCDHLTFFALLLRP----TLDQSTVHILTRISQAGCGVSMIFLAFTIILYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    341 RGAVFHYFLLCAFTWMGLEAFHLYLLAV-RVFNTYFGHYFLKLSLVGWGLPALMV---IG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 124;
                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
9.4%; Score 270; DB 1; Length 1522;
Best Local Similarity 25.1%; Pred. No. 3.6e-12;
Matches 117; Conservative 67; Mismatches 159; Indels 12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SING (IN SHORT ISOFORM).
D22D0A5D4BB62502 CRC64;
                                                         3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                  2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISOFORM
                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL)
                                                                                                                                                               CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                       7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC. . .)
(GLCNAC. . .)
(GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC. . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (IN SHORT ISOFORM)
                                                                                                                                                                                                                                                                             TSP TYPE-1 1.
TSP TYPE-1 2.
TSP TYPE-1 3.
TSP TYPE-1 4.
                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                    (POTENTIAL)
      CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                     POLY-SER.
N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                  POLY-THR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MISSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1522 MIS
AA; 171490 MW;
                                                                                                                                                                                                                                                                                                                                                                                  945
11176
51
54
82
105
                                                                                981
1002
1023
1044
1098
```

```
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                              DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
CARBOHYD
                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                          FRANSMEM
                                                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                          RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                       RANSMEM
                                               RANSMEM
                                                                                                              DOMAIN
                                                                                                                                                                                                                                         DOMAIN
임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QΥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                MEDLINE=95324926; PubMed=7601460; Baud V., Chissoe S.L., Viegas-Pequignot E., Dirlong S., N'Guyen V.C. Roe B.A., Lipinski M.; Roe B.A., Lipinski M.; EMRI, an unusual member in the family of hormone receptors with seven transmembrane segments."; Genomics 26:334-344(1995).
                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MART; SM00303; GPS; 1.
PROSITE; PS0010; ASX_HYDROXYL; 6.
PROSITE; PS01186; EGF_2; 2.
PROSITE; PS01187; EGF_CA, 5.
PROSITE; PS0021; GPR.
PROSITE; PS00650; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS02061; G_PROTEIN_RECEP_F2_4; 1.
POTENTIAL.

BGF-like domain; Repeat; Signal.
                                                                                                                                                                                                                                                                                                                                      --- FUNCTION: PROBABLY INVOLVED IN CELLULAR RESPONSE TO A HORMONE O AN INTERACTION WITH A PROTEIN LIGAND.
--- SUBCELLULAR LOCATION: Integral membrane protein.
--- TISSUE SPECIFICITY: WIDE EXPRESSION; INCREASED LEVELS IN PERIPHERAL BLOOD MONONUCLEAR CELLS.
---- PTM: N-AND O-GLYCOSYLATED; (POSSIBLE).
--- SIMILARITY: COUPLING EGF-LIKE DOMAINS.
--- SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
--- SIMILARITY: CONTAINS I GPS DOMAIN.
                                                                                                                                                                                      Homo sapiens (Human).
Bukaryota, Metasoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutharia; Primates; Catarrhini; Hominidae; Homo.
NCBL_TaxID=9606;
                                                                                                                        01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 41, Last annotation update)
01-MAR-2002 (Rel. 41, Last annotation update)
Cell surface glycoprotein EMR1 precursor (EMR1 hormone receptor).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CELL SURFACE GLYCOPROTEIN EMRI EXTRACELLULAR (POTENTIAL).
                         1104 VVLPLLALTWMSAVLAMTDKRSILFQILFAVFDSLQGFVIVMVHCIL 1150
         485 ----LVGVTWGLAIFTPLGLSTV---YIFALFNSLQGVFICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
CYTOPLASMIC (POTENTIAL)
                                                                                                 886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ALTERPRO, IRROOUSS; Asx_hydroxyl.
InterPro; IRROOUSS1; EGF-like.
InterPro; IRROOUSS1; EGF-Ca.
InterPro; IRROOUSS2; EGF_Ca.
InterPro; IRROOUSS2; GPCR_Secretin.
InterPro; IRROOUSS2; GPCR_Secretin.
InterPro; IRROOUSS2; GPCR_Serich.
Pfam; PPO0008; EGF; 5.
Pfam; PPO01825; GPS; 1.
PRINTS; PRO1128; EMRIHORMONER.
SMART; SMO0179; EGF_CA; 5.
SMART; SMO0179; EGF_LIKe; 1.
SMART; SMO0101; EGF_LIKe; 1.
                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; X81479; CAA57232.1; -. HSSP; P35555; 1EMN.
                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      886
599
627
634
                                                                                                                       01-NOV-1997
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MIM; 600493
                                                                                               EMR1_HUMAN
Q14246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
TRANSMEM
DOMAIN
                                                                       T 6
HUMAN
          δ
                                  g
```

```
39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 -----NYEAHLMKEGLTQK------VNTPF--LKALVQNLST-----NTAEDFYFS 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         : :: | | :: : | 443 ECSEENVTLDLVAKGDKMKIGCSTIEESESTETTGVAFVSFVGMESVLNERFFQDHQAPL 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---KPPDRVRLPKSLFRSLPGNRSVVRL 150
                                                                                                                                                                                                                                                                            CALCIUM-BINDING (POTENTIAL).
CALCIUM-BINDING (POTENTIAL).
CALCIUM-BINDING (POTENTIAL).
CALCIUM-BINDING (POTENTIAL).
CALCIUM-BINDING (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21 QEKPTEGPRNTCLGSNNMYDI ----FNLNDKALCFTKCRQSGSDSCNVENLQRYWL--- 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    151 AVTILDIGPGTLFKGPRLGLG-----DGSGV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              384 LKQISMWIKFIKEETSSLATVFLESVESMTLASFWKPSANV-TPAVRAEYLDIESKVINK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL).
(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 886;
                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL).
EGF-LIKE 1.
EGF-LIKE 2, CALCIUM-BINDIN
EGF-LIKE 3, CALCIUM-BINDIN
EGF-LIKE 4, CALCIUM-BINDIN
EGF-LIKE 5, CALCIUM-BINDIN
EGF-LIKE 6, CALCIUM-BINDIN
                 EXTRACELLULAR (POTENTIAL)
                                                                                                    EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL) POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7456CA56FB624D99 CRC64;
                                                              CYTOPLASMIC (POTENTIAL).
                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8.8%; Score 254.5; DB 1; 23.2%; Pred. No. 2.7e-11; tive 84; Mismatches 232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                        SER/THR-RICH.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILAR
                                                                                                                                                                        POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
97680 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 155; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      111 LEPSQVPRQVMKDED----
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
886 AA;
```

```
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                    611
                                                                                                              337
                                                                                                                                                                 392
                                                                                                                                                                                         723
                                                                                                                                                                                                                                 540
                                                                                                                                       664
                                                                                                                                                                                                              MVIGTGSA -- NSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVL 450
                                                                                                                                                                                                                                                                                                                                   _{\rm IS}
                                                                                                                                                                                                                                                                 ALVV-----WKIFTL-SRATAVKERGKNRK--KVLTLLGLSSL--VGVTWGLAIFT--P 497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDIATED BY G PROTEINS WHICH ACTIVATE ADENYLYL CYCLASE. SUBCELLULAR LOCATION: Integral membrane protein. PTM: CARBOXYL-TERMINAL SER OR THR RESIDUES MAY BE PHOSPHORYLATED. SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEBTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Myers D.A., Trinh J.V., Myers T.R.;
"Structure and function of the ovine type 1 corticotropin releasing factor receptor (CRR1) and a carboxyl terminal variant.";
Mol. Cell. Endocrinol. 144:21-35(1998).
-1- FUNCTION: THIS IS A RECEPTOR FOR CORTICOTROPIN RELEASING FACTOR. SHOWS HIGH-AFFINITY CRF BINDING. THE ACTIVITY OF THIS RECEPTOR I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Corticotropin releasing factor receptor 1 precursor (CRF-R) (CRF1)
                      TTSEIKLKMNSRVG---GIMTGEKKDGFSDP--IIYTLENVQPKQKFERPICVSWSTDV
                                                                                                                           ----LNNRLVGLSVGQMHVTK---LAEPLEIVFSHQRPPPNMTL---TCVFWDV-T
                                                                                 KG--GRWTSFGCVILEASETYTICSCNQMANLAVIMASGELTMDFS----LYIISHVGII
                                                                                                                                                             CWARGAVFHYFLLCAFTWMGLEAFHLYLLA--VRVFNTYFGHYFLKLSLV---GWGLPAL
                                                                                                                                                                             LGLSTVYIFALFNSLQGVFI----CC------WFTILYLPSQSTTVSSSTAR--L
                                                         KGTTGDWSSEGC-STEVRPEGTVCCCDHLTFFALLLRP---TLDQSTVHILTRISQAGCG
                                                                                                          278 VSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Surery).
Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Sutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
                                                                                                                                                                                                                                                                                         761 VIVINSLLLTWILMILRQRLSSVNAEVSTLKDTRLLTFKAFAQLFILGCSWVLGIFQIGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                             415 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Pituitary;
MEDLINE-99079328; PubMed-9863624;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AF054582; AAC08027.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bovidae; Caprinae; Ovis.
NCBI_TaxID=9940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aries (Sheep)
                                                                                                                                                                                                                                                                                                                                                                     541 DQAHSASQ 548
                                                                                                                                                                                                                                                                                                                                                                                              SSMPSASK 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-DEC-1998 (Re
16-OCT-2001 (Re
Corticotropin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ovis aries
Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CRF1_SHEEP
062772;
                                                                                                                                                                                                                                                                                                                                                                                                                                                SHEEP
                                503
                                                                                558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CRHR1
                                                        222
                                                                                                                                                             338
                                                                                                                                                                                      999
                                                                                                                                                                                                                393
                                                                                                                                                                                                                                                                                                                  198
      177
      õ
                                g
                                                       ò
                                                                             g
                                                                                                          ò
                                                                                                                              g
                                                                                                                                                          ò
                                                                                                                                                                                     g
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  296 SRERFKSEDAPKIHVALGGSLFLLNLAFLV-----NVGSGSKGSDAACWAR-- 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----VG 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            188 QMHVTKLAEPLEIVFSHQRPPPNMTLTCV--FWDVTKGTT------GDWSSEGCST 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------VNHSECQEILSEGEKSKAHYHIAVIINYLGHCISLAALLVAFVL--FLRL 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SYGLYTIRDRENRISLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLS 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96
                                                                                                                                                                                                                          CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 GRRPQLRLVKALLLLGLNSISASLQDQHCESLSLASNVSGLQCNASVDLNGTCWPQSPAG 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      342 GAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ::|| : | | | :| :| ::|
192 TAAYNYFHYTNFFWMFGEGCYLHTAVVLTYSTDRLRKWMFI-CIGWGVPFPIIVAWAIGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EVRPEGTVCCCDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RSIRCVRN----IIHWNLISAFILRNATWFVVQLTMSPEVHQSNVG-------WCRLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LY-----YDN----EKCWFGKRPGVYTDYI-YQGPMILVLLINFIFLFNIVRILMTKL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTPLGLSTV - - YIFALFN - - - - SLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00649; G_PROTEIN_RECEP_F2_1; FALSE_NEG.
PROSITE; PS00650; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS50267; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_3; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Signal; Phosphorylation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          143 GNRSVVRLAVTILDIGPGTLFKG-----PRLGLGDG-SGVLNNRLVGLS--
                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FA5F652D12B4CDC4 CRC64;
                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL).
                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.2%; Score 179.5; DB 1;
23.5%; Pred. No. 3.9e-06;
ive 54; Mismatches 163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (GICNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                              (POTENTIAL)
                                                                                                                                                                                                                                                                                                              (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ( POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOPLASMIC
6 (POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
                     PR001879; hormn_receptor
InterPro; IPR000832; GPCR_secretin.
                                                                PRINTS; PR00249; GPCRSECRETIN.
SMART; SM00008; HormR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MΨ.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         47558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 23.59
Matches 101; Conservative
                          Pfam; PF00002; 7tm_2; 1. Pfam; PF02793; HRM; 1.
                                                                                                                                                                                                                                                          415 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                            DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                              RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                        SIGNAL
                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
```

358 FVSVFYCFL 366

g

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Stenzel-Poore M.P.;
"Identification of a novel murine receptor for corticotropin-releasing hormone expressed in the heart.";
Mol. Endocrinol. 9:637-645(1955).
-! FUNCTION: THIS IS A RECEPTOR FOR CORTICOTROPIN RELEASING FACTOR.
SHOWS HIGH-AFPINITY CRF BINDING: THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROPEINS WHICH ACTIVATE ADENYLYL CYCLASE.
-! SUBCELLULAR LOCATION: Integral membrane protein.
-! TISSUE SPECIFICITY: HIGHLY EXPRESSED IN THE HEART. ALSO EXPRESSED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GASTROINTESTINAL TRACT, EPIDIDYMIS, AND
                                                                                                  060748; 060808; 060783; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update) Corticotropin releasing factor receptor 2 precursor (CRF-R 2) (CRF-R) (Corticotropin-releasing hormone receptor 2) (CRF-R)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=Heart;
MEDLINE=95224061; PubMed=7708757;
Perrin M., Donaldson C., Chen R., Blount A., Berggren T.,
Bawchenko P., Vale W.;
"Identification of a second corticotropin-releasing factor receptor gene and characterization of a cDNA expressed in heart.";
Proc. Natl. Acad. Sci. U.S.A. 92:2969-2973(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=BALB/C; TISSUE-Heart;
STRAIN=BALB/C; TISSUE-Heart;
MEDLINE-95166778; PubMed=7755719;
Kishimoto T., Pearse R.V. II, Lin C.R., Rosenfeld M.G.;
"A sauvagine/corticorticorpin releasing factor receptor expressed in heart and skeletal muscle.";
Proc. Natl. Acad. Sci. U.S.A. 92:1108-1112(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=BALB/C; TISSUE=Heart;
MEDLINE=96015396; PubMed=7565810;
Stenzel P., Kesterson R., Yeung W., Cone R.D., Rittenberg M.B.,
                                                                                431 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR000832; GPCR_secretin.
InterPro; IPR011879; hormn_receptor.
Pfam; PF000002; 7tm_2; 1.
Pfam; PF02793; HRM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IN LUNGS, SKELETAL MUSCLE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS; PR00249; GPCRSECRETIN.
SMART; SM00008; HOTMR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U17858; AAA68026.1; -.
EMBL; U21729; AAC52174.1; -.
EMBL; U19939; AAC52243.1; -.
                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCRDb; GCR_1705; -.
GCRDb; GCR_1711; -.
MGD; MGI:894312; Crhr2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                             CRHR2 OR CRF2R.
                                                                         CRF2_MOUSE
                                                                                                                                                                                                                                                                                                              (CRH-R2)
RESULT 8
CKF2_MOUSE
CKF2_MOUSE
TD CGF62_MO
DT 01-NOV-
DT 01-NOV-
DE 0607481
COCTTICC
DE (CCTTICC
OS MAMMED1:
RN NED TIN
RN BILIEZIN
RT TIGENT:
RN FED TIN
RN BILIEZIN
RY FED TICC:
RN FED T
```

```
328 GSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGW 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             448 VVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTP--LGLSTVYI 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 VFLFNIVRILMTKLRASTISETIQYRKAVKATLVLLPILGITYMLFFVNPGEDDLSQI-V 359
                                                                       CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLA-FLVNV-- 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                   CYTOPLASMIC (POTENTIAL).

N-LINKED (GLCNAC. .) (POTENTIAL).

TPG -> QQI (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Corticotropin releasing factor receptor 1 precursor (CRF-R) (CRF1)
(Corticotropin-releasing hormone receptor 1) (CRH-R 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194 HEVHEGNEVWCRCITTIENYFVVINFFWMFVEGCYLHTAIVMTYSTEHLRKMLFL-FIGW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      253 CIPCPIIIAWAVGKLY----YEN----EQCWFGKEAGDLVDYI-YQGPVMLVLLINF
G_PROTEIN_RECEP_F2_1; 1.
G_PROTEIN_RECEP_F2_2; 1.
G_PROTEIN_RECEP_F2_3; 1.
G_PROTEIN_RECEP_F2_4; 1.
receptor; Transmembrane; Glycoprotein; Signal.
24
CORTICOTROPIN RELEASING FACTOR RECEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 431;
                                                                                                                                                                                                                                                                                                                                                                                                                                              6.2%; Score 177.5; DB 1; Length 4
27.8%; Pred. No. 5.8e-06;
Live 41; Mismatches 118; Indels
                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL).
                                                                                                                                               EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                    4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                               -> R (IN REF. 2).
A6D9EDE575DB8061 CRC64;
                                                                                                            1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
                                                                                                                                                           3 (POTENTIAL). CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                         (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                             MISSING (IN REF. 3).
KR -> NG (IN REF. 3).
RW -> SG (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     415 AA.
                                                                                                                                                                                                             5 (POTENTIAL).
CYTOPLASMIC (P
                                                                                                                                                                                                                                                            7 (POTENTIAL)
                                                                                                                                                                                                                                   6 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                          MISSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360 FIXFNSFLQSFQGFFVSVFYCFF 382
                                                                                                                                                                                                                                                                                                                                                                                                            49923 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              506 FALFN----SLQGVFIC---CWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                               138
1159
1168
1205
222
223
3307
3307
431
431
611
106
                                                                                                                                                                                                                                                                                                                                                126
393
397
408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Mouse).
            FRUSITE; PS50227; G PROSITE; PS50227; G G-protein coupled resident.
                                                                                                                                                                                                                                                                                                                                                                                             408 431 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
PS00649;
PS00650;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRHR1 OR CRHR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CRF1_MOUSE P35347;
PROSITE;
PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                 CONFLICT
CONFLICT
SEQUENCE
                                                                                                           RANSMEM
                                                                                                                                   RANSMEM
                                                                                                                                                            PRANSMEM
                                                                                                                                                                                                          RANSMEM
                                                                                                                                                                                                                                   RANSMEM
                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                CONFLICT
                                                                                                                                                                                                                                                                                                                                                          CONFLICT
                                                                                                                                                                                                                                                                                                                                                                       CONFLICT
                                                                                                                     DOMAIN
                                                                                               DOMAIN
                                                                                                                                               DOMAIN
                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
CRF1_MOUSE
                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
```

PKIHVALGGSLFLLNLAFLV---NVGSGSKGSDAACWAR--GAVFHYFLLCAFTWMGLEA 360 153 -IIHWNLISAFILRNATWFVVQLTVSPEVHQSNVA-WCRLVTAAYNVFHVTNFFWMFGEG 210

361 FHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELC 420

246 CDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDA 305

61 GQLVV----RPCP----AFFYGVRYNTINNGYRECLANGSWAARVNYSECQ---

-----EILNEEKKSKVHYHIAVIINYLGHCISLVALLVAFVL--FLRLRSIRCLRN--

104 306

GNRSVVRL--AVTILDIGP-GTLFKGPR---LGLGDG-SGVLNNRLVGLSVGQMHVTKLA 195

143

961

à g ò 셤 ö g ò

2 GORPOLRIVKALLLIGINPVSTSLODOQCESLSLASNVSGLOCNASVDL-IGTCWPRSPA 60

EPLEIVFSHQRPPNWTLTCVFWDVTKGTT------GDWSSEGCSTEVRPEGTVCC

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                               human brain corticotrophin releasing factor receptors.";
FEBS Lett. 335:1-5(1993).
-!- FUNCTION: THIS IS A RECEPTOR FOR CORTICOTROPIN RELEASING FACTOR.
SHOWS HIGH-AFFINITY CFE BINDING. THE ACTIVITY OF THIS RECEPTOR IS
MEDIATED BY G PROTEINS WHICH ACTIVATE ADENYLYL CYCLASE.
-!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- TISSUE SPECIFICITY: BRAIN, PITULTARY GLAND, TESTIS. NOT DETECTED
IN PLACENTA, PERIPHERAL BLOOD, LYMPHOCYTES, KIDNEY AND LIVER.
-!- TIM: CARBOXYL-TERMINAL SER OR THR RESIDUES MAY BE PHOSPHORYLATED.
-!- SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                            MEDINE-94063063; PubMed-8243652; Vita N., Laurent P., Lefort S., Chalon P., Lelias J.-M., Kaghad M., le Fur G., Caput D., Ferrara P.; "Primary structure and functional expression of mouse pituitary and
Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00649; G_PROTEIN_RECEP_F2_1; 1.
PROSITE; PS00650; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS5027; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_3; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Signal; Phosphorylation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-LINKED (GLCNAC...) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81423BDA6D1CA070 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGD; MGI:88498; Crhr.
InterPro; IPR000832; GPCR_secretin.
InterPro; IPR001879; hormn_receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRINTS; PR00249; GPCRSECRETIN. SMART; SM00008; HormR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .
Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X72305; CAA51053.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pfam; PF00002; 7tm_2; 1.
Pfam; PF02793; HRM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24
415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2213
2227
2227
2227
3334
415
3349
415
415
78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S39535.
                                                                                SEQUENCE FROM N.A.
                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCR_0848;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR; S39535;
GCRDb; GCR_08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHAIN
     SOLUTION OF THE STREET STREET
```

```
LOVERDER T.W., Liaw C.W., Grigoriadis D.E., Clevenger W.,
Chalmers D.T., de Souza E.B., Oltersdorf T.;
Proc. Natl. Acad. Sci. U.S.A. 92:5759-5759(1995).
-!- FUNCTION: THIS IS A RECEPTOR FOR CORTICOTROPIN RELEASING FACTOR.
SHOWS HIGH-AFFINITY CRF BINDING. THE ACTIVITY OF THIS RECEPTOR IS
MEDIATED BY G PROTEINS WHICH ACTIVATE ADENYLYL CYCLASE. THE RANK
ORDER OF POTENCY FOR THE RECEPTOR IS SAUVAGINE > UROTENSIN >-
RAT/HUMAN CRF > OVINE CRF.
211 CYLHTAIVLTYSTDRLRKWM-FVCIGWGVPFPIIVAWAIGKLY------YDN----EKC 258
                                          WFREGITMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLL 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: Integral membrane protein.

ALTERNATIVE PRODUCIS: 2 ISOFORMS: CRE2-ALPHA (SHOWN HERE) AND
CRE2-BERPA, ARE PRODUCED BY ALTERNATIVE SPLICING. CRE2-ALPHA
APPEARS TO BE THE PREDOMINANT FORM.

TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN LIMBIC REGIONS OF
THE BRAIN SUCH AS THE LAPERAL SEPTUM, THE ENTORHINAL CORTEX, THE
HYPOTHALAMIC VENTROMEDIAL NUCLEUS AND SEVERAL AMYGDALOID NUCLEI.
ALSO DETECTABLE IN LUNG, KIDNEY AND HEART.

SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                      WFGKRPGVYTDYI-YQGPMILVLINFIFLFNIVRILMTKLRASTTSETIQYRKAVKATL 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                             (CRF-R 2) (CRF2)
2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=95148632; Pubbled=7846062;
Lovenberg T.W., Liaw C.W., Grigoriadis D.E., Clevenger W.,
Chalmers D.T., de Souza E.B., Oltersdorf T.;
"Cloning and characterization of a functionally distinct
corticotropin-releasing factor receptor subtype from rat brain.";
Proc. Natl. Acad. Sci. U.S.A. 92:836-840(1995).
                                                                                                                                                          GLSSLVGVTWGLAIFTPLGLSTV--YIFALFN----SLQGVFICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-SPRAGUE-DAWLEY; TISSUE-Hypothalamus, and Lung;
                                                                                                                                                                                                                                                                                                                        01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
16-CGT-2001 (Rel. 40, Last annotation update)
COTICOCTIOPIN releasing factor receptor 2 precursor (Corticotropin-releasing hormone receptor 2) (CRH-R
                                                                                                                                                                                                                                                                                  411 AA
                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                              CRHR2 OR CRF2R.
                                                                                                                                                                                                                                                                                  CRF2_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ERRATUM
                                                                                                                                                                                                                                            10
                                                  421
                                                                                          259
                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                      g
                                                  á
                                                                                          a
                                                                                                                                       à
```

21;

Gaps

73;

Length 415; Indels

Score 176.5; DB 1; Pred. No. 6.6e-06; 5; Mismatches 179;

6,1%; Sco. 25.1%; Pre-tive 55;

Conservative

al Similarity 103; Conserv

Query Match Best Local Si Matches 103;

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
MDAALLISLIEANCSLALAEELLIDGWGEPPDPE.-> MGH
CHRTTTRNES (LLCLYSLIPLLCYARGRELQDPLWTLLEQY
CHRTTTRNES (TI ISOFORM CRF2-BETA).
1C6E85801BC94469 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     119 INYLGHCVSVVALVAAFLLFLVLRSIRCL----RNVIHWNLITTFILRNITWFLLQLID 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281 VFLFNIVRILMTKLRASTTSETIQYRKAVKATLVLLPLLGITYMLFFVNPGEDDLSQI-V 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           271 ISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLA-FLVNV-- 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                   CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 328 GSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               388 GLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :| :: | | :: | | :: | | 233 CIPCPIIVAMAVGKLY-----YEN-----EQCWFGKEPGDLVDYI-YQGPIILVLLINF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIFTP--LGLSTVYI
                                                                                                                                                                                                     31;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.0%; Score 173.5; DB 1; Length 411; 27.4%; Pred. No. 1.1e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41; Mismatches 119; Indels
                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLUIAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                           4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                              1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                             (POTENTIAL)
                                                                                                               InterPro; IPR000832; GPCR_secretin.
InterPro; IPR001879; hormn_receptor.
Pfam; PF00002; 7tm_2; 1.
Pfam; PF02793; HRM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FALFN ---- SLOGVFIC --- CWF 521
                                                                                                                                                                            PRINTS; PR00249; GPCRSECRETIN. SMART; SMO0008; HOFMR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47706 MW;
                                                                                                             EMBL; U16253; AAC52159.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                   18
                                                                                                                                                                                                                                                                                                                                                                                                                           2244
2246
2246
2288
3311
3311
41
74
74
86
                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the FWBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@18b-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Testis;

MEDLINE-9673921; pubmed-8662941;

MEDLINE-9673921; pubmed-8662941;

Traal-Morris C., Buczko E., Geng Y., Gamboa-Pinto A., Dufau M.L.;

Traal-Morris C., Amcaber of the rat corticotropin releasing factor receptor. A member of the class 11 G protein-coupled receptors.";

-1. Function: THIS IS A RECEPTOR FOR CORTICOTROPIN RELEASING FACTOR. SHOWS HIGH AFFINITY CRP BINDING. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH ACTIVATE ADENVITY. CYCLASE.

-1. SUBCELLULAR LOCATION: Integral membrane protein.

-1. TISSUE SPECIFICITY: ENTIRE NEWOUS SYSTEM.

-1. PTHN: CARBOXYL-TERMINAL SER OR THR RESIDUES MAY BE PHOSPHORYLATED.

-1. PTM: CARBOXYL-TERMINAL SER OR THR RESIDUES MAY BE PHOSPHORYLATED.

-1. PTM: CARBOXYL-TERMINAL SER OR THR RESIDUES MAY BE PHOSPHORYLATED.

-1. PTM: SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                 Eukaryota, Métazoa, Chórdata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=SPRAGUE-DAWLEY;
MEDLINE=94099969; PubMed=8274282;
Chang C.P., Pearse R.V. II, O'Connell S., Rosenfeld M.G.;
Tidentification of a seven transmembrane helix receptor for corticotropin-releasing factor and sauvagine in mammalian brain.";
Neuron 11:1187-1195(1993).
          01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
corticoctropin releasing factor receptor 1 precursor (CRF-R) (CRFI)
(Corticoctropin-releasing hormone receptor 1) (CRH-R 1).
                                                                                                                                                                                                                                                                STRAIN=SPRAGUE-DAWLEY; TISSUE-Brain; MEDLINE-94062694; PubMed-6243338; Perrin M.H., Donaldson C.J., Chen R., Lewis K.A., Vale W.W.; "Cloning and functional expression of a rat brain corticotropin releasing factor (CRF) receptor."; Endocrinology 133:3058-3061(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122438, AAA16441.1;
153498, AAC53119.1;
153486, AAC53119.1;
153489; AAC53119.1; JOINED.
153489; AAC53119.1; JOINED.
153489; AAC53119.1; JOINED.
153499; AAC53119.1; JOINED.
153491; AAC53119.1; JOINED.
153494; AAC53119.1; JOINED.
153496; AAC53119.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; L24096; -; NOT_ANNOTATED_CDS
  PRT;
                                                                                                                                                    norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCR_0819; -. GCR_0947; -. GCR_1414; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                        NCBI_TaxID~10116;
CRF1_RAT
P35353;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCRDb;
GCRDb;
                                                                                                                                                    Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCRDb;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
```

```
21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    143 GNRSVVRL--AVTILDIGP-GTLFKGPR---LGL-GDGSGVLNNRLVGLSVGQMHVTKLA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WFGKRPGVYTDYI-YQGPMILVLLINFIFLFNIVRILMTKLRASTTSETIQYRKAVKATL 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                       CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                                         4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2 GRRPQLRLVKALLLGLNPVSTSLQDQRCENLSLTSNVSGLQCNASVDL-IGTCWPRSPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196 EPLEIVFSHQRPPPNMTLTCVFWDVTKGTT------GDWSSEGCSTEVRPEGTVCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61 GOLVV-----RPCP----AFFYGVRYNTINNGYRECLANGSWAARVNYSECQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    306 PKIHVALGGSLFLLNLAFLV---NVGSGSKGSDAACWAR--GAVFHYFLLCAFTWMGLEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  211 CYLHTAIVLTYSTDRLRKWM-FVCIGWGVPFPIIVAWAIGKLH-----YDN----EKC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                246 CDHLTFFALLLRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153 - IIHWNLISAFILRNATWFVVQLTVSPEVHQSNVA-WCRLVTAAYNYFHVTNFFWMFGEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WFREGITMYALY ITVHGYFLITFLFGMVVLALVVWK IFTLSRATAVKERGKNRKKVLTLL
                                                                                                      PROSITE; PS00649; G_PROTEIN_RECEP_F2_1; 1.
PROSITE; PS00649; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS00250; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_3; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Signal; Phosphorylation.
SIGNAL 1 24 CORTICOTROPIN RELEASING FACTOR RECEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GLSSLVGVTWGLAIFTPLGLSTV--YIFALFN----SLQGVFICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                        2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 48D6704B31D4C013 CRC64;
                                                                                                                                                                                                                                               1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6.0%; Score 172.5; DB 1;
24.9%; Pred. No. 1.3e-05;
ative 57; Mismatches 178;
           GCRDb; GCR_1469; -.
InterPro; IPR000832; GPCR_secretin.
InterPro; IPR01879; hormn_receptor.
Pfam; PF00002; 7tm_2; 1.
Pfam; PF02793; HRM; 1.
                                                                             PRINTS; PR00249; GPCRSECRETIN. SMART; SM00008; HormR; 1.
                                                                                                                                                                                                                                                                                              Matches 102; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AA;
                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN:
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                               PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                              LRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/anndunce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                             Reagan J.D.;
"Molecular cloning and function expression of a diuretic hormone
"receptor from the house cricket, Acheta domesticus.";
Insect Biochem, Mol. Biol. 26:1-6(1996).
-I- FUNCTION: RECEPTOR FOR THE INSECT DIURECTIC HORMONE. THE ACTIVITY
OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH ACTIVATE ADENYLY.
                                                                                                                                                                                      Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;
Pterygota; Neoptera; Orthopteroidea; Orthoptera; Ensifera; Gryllidae;
Gryllinae; Acheta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -1- SUBCELLULAR LOCATION: Integral membrane protein.
-1- TISSUE SPECIFICITY: EXPRESSED IN MALPIGHIAN TUBULES.
-1- SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

S (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PRO0249; GPCRECRETIN.
SMART; SM00008; HOTMR; 1.
PROSITE; PS00669; G_PROTEIN_RECEP_F2_1; 1.
PROSITE; PS50227; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_3; 1.
G-PROTEIN_RECEP_F2_4; 1.
TABLESSER CONTENT CONTENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DIURETIC HORMONE RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
     441 AA
                                                     01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update
                                                                                                                                       Diuretic hormone receptor precursor (DH-R). Acheta domesticus (House cricket).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Interpro; IPR000832; GPCR_secretin.
Interpro; IPR01879; hormn_receptor.
Pfam; PF000002; 7fm_2; 1.
     PRT;
                                                                                                                                                                                                                                                                                                                                                     TISSUE=Malpighian tubules;
MEDLINE-96189577; PubMed-8673074;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U15959; AAC47000.1; -. GCRDb; GCR_1380; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           49538
     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 112
441 AA;
                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                              NCBI_TaxID=6997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYCLASE.
DIHR_ACHDO
Q16983;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
CARBOHYD
CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
```

```
13;
                                                                            275 GCGVSMIFLAFTIILYAF---LRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVN---- 326
                                                                                                                                                                                                                                                                                                                                  437 GYFLITFL-FGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVTWGLAIF 495
                                                                                                                      140 GFCLSLVAIAVAIWIFLYFKDLRCLRN------TIHTNLMATYICNDATWIISAVVQE 191
                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-Brain;
MEDLINE-24603063;
Wita N., Laurent P., Lefort S., Chalon P., Lelias J.-M., Kaghad M., le Fur G., Caput D., Ferrara P.;
Prinary structure and functional expression of mouse pituitary and human brain corticorrophin releasing factor receptors.";
FEBS Lett. 335:1-5(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CRF1_HUMAN STANDARD; PRT; 444 AA.
P34998: Q13008; Q9UK64;
P34988: Q13008; Q9UK64;
O1-FEB-1994 (Rel. 28, Created)
O1-FEB-1994 (Rel. 28, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Corticotropin releasing factor receptor 1 precursor (CRF-R) (CRF1)
CCTHICOLTOPIN TELEASING hormone receptor 1) (CRH-R 1).
                                                                                                                                                                327 -VGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLS--
                                                                                                                                                                                        | :| | :| | :| | :||| | | || :| :|| | | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| | :|| :|| | :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| 
                                                                                                                                                                                                                                                                         384 -LVGWGLPALMVIGTGSANSYGLYTIRDRENRTS----LELC-WFREGTTMYALYITVH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. (ISOFORM CRF-R4).
MEDLINE-20065650; PubMed=10598591;
Grammatopoulos D.K., Dai Y., Randeva H.S., Levine M.A., Karteris
Baston A.J., Hillhouse E.W.;
                                           46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-Pituitary;
MEDLINE-94022296; PubMed-7692441;
Chen R., Lewis K.A., Perrin M.H., Vale W.W.;
"Expression cloning of a human corticotropin-releasing-factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sakai K., Yamada M., Horiba N., Wakui M., Demura H., Suda T.;
Submitted (DEC-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-Hippocampus;
MEDLINE-9511033; PubMed-7811272;
Ross P.C., Kostas C.M., Ramabhadran T.V.;
A variant of the human corticotropin-releasing factor (CRF) receptor: cloning, expression and pharmacology.";
Blochem. Blophys. Res. Commun. 205:1836-1842(1994).
  DB 1; Length 441;
                                           115; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                            .496 TPLGLSTVYIF----ALFNSLQGVFICCWFTILYLPSQST 531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci. U.S.A. 90:8967-8971(1993).
  Score 168; DB Pred. No. 3e-05
                                       50; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. (ISOFORM CRF-R3).
                   Similarity 24.6
69; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Query Match
Best Local 3
                 Best Loca
Matches
                                                                                                                      g
                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                å
                                                                                                                                                              δy
                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                              δy
                                                                                                                                                                                                                                                                                                                                                                                                                 òγ
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
spliced variant of the type 1 corticotropin-releasing hormone with a deletion in the seventh transmembrane domain present
                                                                                                                                                                                                                                                                                             CRF-R1
                                                             in the humah pregnant term myometrium and fetal membranes.";
Mol. Endocrinol. 13:2189-2202(1999).
-!- FUNCTION: THIS IS A RECEPTOR FOR CORTICOTROPIN RELEASING FACTOR.
SHOWS HIGH-AFFINITY CFF BINDING. THE ACTIVITY OF THIS RECEPTOR IS
MEDIATED BY G PROTEINS WHICH ACTIVATE ADENYLYL CYCLASE.
                                                                                                                                                                                                                                                                                                                                                WITH A HIGH AFFINITY.

TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE CEREBELLUM, PITUITARY, CEREBELLUM, EXPRESSED IN THE CEREBELLUM, PITUITARY, CEREBRAL CORTEX AND OLFACTORY LOBE.

PTM: CARBOXYL-TERMINAL SER OF THR RESIDUES MAY BE PHOSPHORYLATED. SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                                                                                                                         SUBCELLULAR LOCATION: Integral membrane protein.
ALTERNARIVE PRODUCTS: 4 ISOFORMS, CRF-R3 (SHOWN HERE), CRF-R2, CRF-R3 AND CFF-R4/1D; ARE PRODUCED BY ALTERNATIVE SPLICING. CRF-RAPEARS TO BE THE PREDOMINANT FORM. CRF-R3 DOES NOT BIND TO CRF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00649; G_PROTEIN_RECEP_F2_1; 1.
PROSITE; PS00650; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_3; 1.
G-protein coupled receptor; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL, L23332, AAA55718.11 --
EMBL, X7234, CAA51052.11 --
EMBL, AF039523, AAC69993.12 --
EMBL, AF039510, AAC69993.13 JOINED.
EMBL, AF039512, AAC69993.13 JOINED.
EMBL, AF039512, AAC69993.13 JOINED.
EMBL, AF039513, AAC69993.13 JOINED.
EMBL, AF039515, AAC69993.13 JOINED.
EMBL, AF039515, AAC69993.13 JOINED.
EMBL, AF039515, AAC69993.13 JOINED.
EMBL, AF039519, AAC69993.13 JOINED.
EMBL, AF039519, AAC69993.13 JOINED.
EMBL, AF039519, AAC69993.13 JOINED.
EMBL, AF039513, AAC69993.13 JOINED.
EMBL, AF039513, AAC69993.13 JOINED.
EMBL, AF039513, AAC69993.13 JOINED.
EMBL, AF039521, AAC69993.13 JOINED.
EMBL, JOINED.
EMBL, JOINED.
EMBL, JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Phosphorylation; Alternative splicing.
SIGNAL 1 24 POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCRDb; GCR_0679; -. GCRDb; GCR_0680; -. GCRDb; GCR_0846; -. GCRDb; GCR_20346; -. MIM; 122561; -. InterPro; IPR000832; GPCR_secretin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; IPR001879; hormn_receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00249; GPCRSECRETIN. SMART; SM00008; HormR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; L23333; AAA35719.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00002; 7tm_2; 1.
Pfam; PF02793; HRM; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           142
180
200
218
242
242
256
278
278
   novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  InterPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CHAIN
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its way non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
SHOWS HIGH-AFFINITY BINDING FOR UROTENSIN I. THE ACTIVITY OF THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH ACTIVATE ADENYLYL CYCLASE (BY SIMILARITY).
SUBCELLULAR LOCATION: Integral membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         427 TMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLV 486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         206 RPPPNMTLICVFWDVTKGTTGD-------WSSEGCSTEVRPEGTVCCCDHLTFFALL 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RPCPE----YFHGVQYNTTGNVYRECHLNGSWAGRG------DYAQCQEIL 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NTYFCHYFLKLS ----LVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          107 KQEKKTKVHYHIAIVINFLGHSISLCALLVAFIL--FLRLRSIRCLRN---IIHWNLITA 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOLUASHLO.

6 [POTENTIAL].

7 [POTENTIAL].

CYTOPLASMIC [POTENTIAL].

N-LINKED (GLCNAC. ...) (POTENTIAL).

N-LINKED (GLCNAC. ...) (POTENTIAL).

N-LINKED (GLCNAC. ...) (POTENTIAL).

N-LINKED (GLCNAC. ...) (POTENTIAL).
                                                                   SUBCELLULAR LOCATION: Integral membrane protein.
SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STD-----KLRKWMFICIGWCIPFPIIVAWAIGKLY-----YDN----EKCWFGKKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256 LRPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LFLINLA-FLVNVGSGSKGSDA-ACWAR--GAVFHYFLLCAFTWMGLEAFHLYLLAVRVF
                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00249; GPCRSECRETIN.
SMART; SM00008; HOLMR; 1.
PROSITE; PS00649; G_PROTEIN_RECEP_F2_1; 1.
PROSITE; PS00550; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50201; G_PROTEIN_RECEP_F2_3; 1.
G_POTCHIN COULD TRANSMEMBLANGER TRANSMEMB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  :99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 415;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 165; DB 1; Length 41!
Pred. No. 4.7e-05;
Mismatches 149; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED (GLCNAC. . . ) (P
74ED24C17907B74D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITUPLASMIC (POTENTIAL).
4 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3 (POTENTIAL)
CYTOPLASMIC (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.7%; Score 165; 23.6%; Pred. No. 4
                                                                                                                                                                                                                                                                                                                            InterPro; IPR000832; GPCR_secretin.
InterPro; IPR001899; hormn_receptor
Pfam; PF00002; 7tm_2; 1.
Pfam; PF02793; HRM: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MM;
                                                                                                                                                                                                                                                                                         EMBL; Y14036; CAA74363.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     47786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25
415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   415 AA;
                                                                                                                                                                                                                                                                                                              GCRDb; GCR_2584;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                 12;
                                                                                                      CYTOPLASMIC (POTENTIAL).

N-LINKED (GLCNAC. . .) (POTENTIAL).

GLQCNASVDLIGTCWPRSPAGQLVVRPCPAFFYGVRYNTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSE-------DAP----- 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           117 HVAVIINYLGHCISLVALLVAFVLFIRLRPGCTHWGDQADGALEVGAPWSGAPFQVRRSI 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            408 IRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVK 467
                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dautzenberg F.M., Dietrich K., Palchaudhuri M.R., Spiess J.; "Identification of two corticotropin-releasing factor receptors from Xenopus laevis with high ligand selectivity: unusual pharmacology of the type 1 receptor."; The type 1 receptor."; J. Naurochem. 69:1640-1649(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (CRF-R) (CRF1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ----KIHVALGGSLFLLNLAFLV------NVGSGSKGSDAACWAR--GAVFHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     227 FHVTNFFWMFGEGCYLHTAIVLTYSTDRLRKWMFI-CIGWGVPFPIIVAWAIGKLY----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ---YDN----EKCWFGKRPGVYTDYI-YQGPMILVLLINFIFLFNIVRILMTKLRASTTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ERGKNRKKVLTLLGLSSLVGVTWGLAIFTPLGLSTV--YIFALFN----SLQGVFICCWF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               348 FLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                     (IN ISOFORM CRF-R2, ISOFORM
                                                                                                                                                                                                                                                                                                                                                                                                                                 68;
                                                                                                                                                                                                                                                                                                                                                                                          Length 444;
                                                                                                                                                                                                                                                                                                            (IN ISOFORM CRF-R4).
                                                                                                                                                                                                                                                                                                                                                                                        5.8%; Score 166; DB 1; Length 44.
23.8%; Pred. No. 4.3e-05;
Live 43; Mismatches 120; Indels
                                                 EXTRACELLULAR (POTENTIAL).
7 (POTENTAL:
                                                                                                                                                                                                                                                                                         CRF-R3 AND ISOFORM CRF-R4)
                                                                                                                                                                                                                                                                                                                                7221AEFBOE7AA8ED CRC64;
          (POTENTIAL)
                                                                                                                                                                                                                                                  D (IN ISOFORM CRF-R3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Corticotropin-releasing factor receptor 1 precursor (Corticotropin-releasing hormone receptor 1) (CRH-R CMF1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JUL-1998 (Rel. 36, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Corticotropin releasing factor receptor 1 prec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          415 AA
                                                                                          (POTENTIAL).
                                                                                                                                                                                                                                                                                                              MISSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kenopus laevis (African clawed frog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-97465573; PubMed-9326293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last seque
16-OCT-2001 (Rel. 40, Last anno
                                                                                                                                                                                                                                                                                                                                MM;
                                                                                                                                                                                                                                                                                                                                50719
                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 23.8
Matches 72; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
          3320
3423
3343
3353
336
338
444
455
78
90
90
90
                                                                                                                                                                                                                                                                                                            398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xenopodinae; Xenopus.
NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                              444 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
          385
                                                                                                                                                                                                                                                                         146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'ISSUE-Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    522 TIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         393 CFL 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CRF1_XENLA
042602;
                            DOMAIN
TRANSMEM
                                                                   DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                       VARSPLIC
                                                                                                                                                                                                                                                                                                            VARSPLIC
                                                                                                                             CARBOHYD
                                                                                                                                                 CARBOHYD
                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                  VARSPLIC
            FRANSMEN
                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RF1_XENLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
          ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
```

```
CARBOHYD
                                         DOMAIN
TRANSMEM
                   TRANSMEM
                                                                                                                                                                                                                                                  Query Match
                                                                                                                                        CARBOHYD
                                                                                                                                                                CARBOHYD
                                                                                                                                                                                   SEQUENCE
                                                                             DOMAIN
                                                                                                                                                                                                                                                                     Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  490
SELETER
                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Baloinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUENCE FROM N.A.

TISSUE-1465573; PubMed-9326293;

MEDLINE-97465573; PubMed-9326293;

MEDLINE-97465573; PubMed-9326293;

A Dautzenberg F.M., Dietrich K., Palchaudhuri M.R., Spiess J.;

Talentification of two corticotropin-releasing factor receptors from Tentification of two corticotropin-releasing factor receptors from Tentification of two corticotropin-releasing pharmacology of Xenopus laevis with high ligand selectivity: unusual pharmacology of the type 1 receptor.

To heurochem. 69:1460-1464(1997).

To heurochem. 69:1460-1464(1997).

The type 1 receptor.

The 
265 GVYTDFI-YQGPVILVLIINFIFLFNIVRILMTKLRASTTSETIQYRKAVKATLVLLPLL 323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
CORTICOTROPIN RELEASING FACTOR RECEPTOR
                                                                                                                                                                                                                                                                                                            Corticotropin releasing factor receptor 2 precursor (CRF-R 2) (CRF2)
(Corticotropin-releasing hormone receptor 2) (CRH-R 2).
                                                                                                                                                                                                                                                                                                                                                                    Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PR00249; GPCRECRETIN.
SMART; SM00008; HORDR: 1.
PROSITE; PS00649; G_PROTEIN_RECEP_F2_1; 1.
PROSITE; PS00550; G_PROTEIN_RECEP_F2_2; 1.
PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
G-profein coupled receptor; Transmembrane; Glycoprotein; Signal.
SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOPLASMIC (POTENTIAL).
                                                                                      324 GITYMLFFVTPGEDEISRIVFIXFNSFLQSFQGFFVSVFYCFL 366
                                                          GVTWGLAIFTP-----LGLSTVYIFALFNSLQGVFICCWFTIL
                                                                                                                                                                                                                                           15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                    413 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ( POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5 (POTENTIAL)
                                                                                                                                                                                                                                                                                                            Corticotropin releasing factor receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; Y14037; CAA74364.1; -. GCRDb; GCR_2578; -. InterPro; IPR000832; GPCR_secretin. InterPro; IPR001879; hormn_receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00002; 7tm_2; 1.
Pfam; PF02793; HRM; 1.
                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
1141
1150
1170
1170
221
247
247
266
289
                                                                                                                                                                                                                                                                                                                                                                                                                             Xenopodinae; Xenopus.
NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               142
151
171
171
188
212
226
248
248
                                                                                                                                                                                                         CRF2_XENLA
042603;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                CHAIN
                                                          487
                   g
                                                                                               g
                                                          ò
```

```
12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::| ::| :|| :|| :|| :|218 TYSTDKLRKWVFL-FIGWCIPSPIIVTWAICKLF-----YEN----EQCWIGKEPGKY 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  370 VFNTYFGHYFLKLSLVGWGLPALMVIGTGSANSYGLYTIRDRENRTSLELCWFREGTTMY 429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           430 ALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLGLSSLVGVT 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTLDQS---TVH--ILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVAL 312
                                                                                                                                                                                                                                                                                                                                                                                                           103 PILDNKRKYALHYKIALIINYLGHCISILALVIAFLLFLCLRSIRCLRNI----IHWNL 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                            313 GGSLFLLNLA-FLVNVGSGSKGSDAACWAR--GAVFHYFLLCAFTWMGLEAFHLYLLAVR 369
                                                                                                                                                                                                                                                                                                                        Gaps
                     6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                        33;
                                                                                                                                                                                                                                                                        5.6%; Score 161.5; DB 1; Length 413; 25.6%; Pred. No. 8.4e-05; ive 45; Mismatches 131; Indels 33
       CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WGLAIFTPLGLSTV--YIFALFN----SLQGVFICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MW;
312
332
347
413
16
71
89
89
48458 1
                                                                                                                                                                                                                                                                                                Local Similarity 25.6%
nes 72; Conservative
                                                                                                                                                                                                           413 AA;
```

Search completed: June 11, 2002, 22:30:41 Job time: 430 sec

```
June 11, 2002, 22:24:36 ; Search time 68.53 Seconds (without alignments) 1385.878 Million cell updates/sec
                                                                                                                                                                             US-09-733-387-44
2878
1 MATPRGLGALLLLLLPTSG.....STTVSSSTARLDQAHSASQE 549
                                                                                                                                                                                                                                                                                                                                                  562222
GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                        562222 segs, 172994929 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                    OM protein – protein search, using sw model
                                                                                                                                                                                                                                                     BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sp_archea:*
sp_bacteria:*
sp_fungi:*
sp_human:*
sp_invertebrate:*
sp_mammal:*
                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SPTREMBL_19:*
                                                                                                                                                                             Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                      Run on:
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

sp_unclassified:*

sp_rvirus:*
sp_bacteriap:*
sp_archeap:*

sp_vertebrate:*

sp_plant:* sp_rodent:* sp_virus:*

sp_organelle:* sp_phage:*

sp_mhc:*

	Description	Oggata muscul	O00406 homo sanien							200	097820 bos taurus	200	2 0	2 0	088927 rattue norm	097824 hos taurus	
SUMMARIES	ID	090ZT2	000406	992360	096HB4	O9Y653	096JW0	Q9Y3K0	094867	097819	097820	097825	097826	097818	088927	097824	090нх3
	DB	11	4	4	4	4	4	4	4	9	9	9	9	9	11	9	4
	Query Match Length DB	687	1014	687	693	663	512	541	872	1231	1274	1299	1342	1503	1527	1571	823
æ	Query	22.4	21:2	21.0	20.7	20.7	19.3	19.3	13.4	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
	Score	643.5	610.5	603.5	596.5	594.5	555.5	555.5	387	383.5	383.5	383.5	383.5	383.5	383.5	383.5	382.5
	Result No.	н	7	e	4	5	9	7	ω	6	10	11	12	13	14	15	16

Q9har2 homo sapien 097822 bos taurus 097828 bos taurus 097829 bos taurus 097821 bos taurus 097821 bos taurus 097821 bos taurus 097827 bos taurus 096197 homo sapien 097831 bos taurus 097832 homo sapien 097802 bos taurus 097802 bos taurus 097804 bos taurus 097805 bos taurus 097806 bos taurus 097807 bos taurus 097807 bos taurus 097807 bos taurus 097807 bos taurus 097808 bos taurus 097809 bos taurus 097809 bos taurus 097800 bos taurus	ALIGNMENTS PRT; 687 AA. eated) st sequence update) st sequence update) st annotation up	643.5; DB 11; Length 687; No. 1.2e-47; smatches 219; Indels 65; Gaps 17;
0914AR2 097823 097828 097828 097829 097821 097821 097827 0961E7 097831 089191 089191 089181 089182 097815 097815 097815 097816 097815 097816 097816 097817 097817 097817 097817 097817 097818	ALIGNMENTS RAY; PRT; 687 R el. 13, Created) el. 19, Last sequence el. 19, Last annotatic Chordata; Craniata; Ve Rodentia; Sciurognathi S.; Palls J., Lemisch S.; Palls J., Lemisch Ovel hematopoletic ste to the EMBL/GenBank/D T.5. T.5. T.5. T.5. T. T	Score Pred. 9; Mis
4000000104440001144440000011	ARRY; PR cel. 13, Cree cel. 13, Lass cel. 19, Lass cel. 19, Lass Chordata; Cr Chordata; Cr Rodentia; Sc Roden	.4%; .1%; e 8
1240 12240 13283 13308 15800 15800 15800 16839 1674 1775 1384 1123 1123 1123 1123 11403 11400 1460	INARY Lrel. Lrel. Lrel. Crol. R. Cho	22.48 31.18 7ative
2.2.2.3.3.3.3.4.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5	PRELIMINARY; (TrEMBLrel. 13, 0 (TrEMBLrel. 13, 1) (TrEMBLrel. 19, 1) PECEPTOR. (TREMBLrel. 19, 1) PECEPTOR. (ABOUSE). (MOUSE). (MOU	Similarity 31. 8; Conservative
382.5 379 379 379 379 371.5 371.5 371.5 371.5 371.5 370.5 369.5 369.5 35	PRELIMINARY; 090ZTZ 090ZTZ 01-MAY-2000 (TrEMBLrel. 13, Las 01-MAY-2000 (TrEMBLrel. 13, Las 01-MAY-2000 (TREMBLrel. 19, Las SERPENTINE RECEPTOR. GPR56 OR CYT28. Mus musculus (Mouse). Eukaryota; Metazoa; Chordata; Chordata; Rodentia; STRAIN-C57BL/6; TISSUB-LIVER; Phillips R.L., Ernst R.E., Dosi Kingsley P.D., Sykes S., Palis "Identification of novel hemato Submitted (JUL-1999) to the EMB EMBL; AFI66382; AAF00617.1; - MCD: MGI.1340003; AMP-Dind. InterPro; IPR00083; ARP.Cys_ri Pfam; PF00002; 7fm_2; 1. PROSITE; PS50261; G_PREECRETIN. SMART; SM00303; GPS; 1.	atch Bal
1111222222222222222222222222222222222	RESULT 090212 10 10 01 01 01 01 01 01 01 01	Query Ma Best Loc Matches

```
MEDLINE-97294669; PubMed-9150425;
Osterhoff C., Ivell R., Kirchhoff C.;
"Cloning of a human epididymis-specific mRNA, HE6, encoding a novel member of the seven transmembrane-domain receptor superfamily.";
DNA Cell Biol. 16:379-389(1997).
-!- FUNCTION: MAY BE INVOLVED IN COMMUNICATION BETWEEN THE BIOLOGICAL COMPONENTS OF THE EPIDIDYMIS. C-TERMINUS MAY BE INVOLVED IN G-PROTEIN COUPLING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
TISSUE SPECIFICITY: EXPRESSED EXCLUSIVELY IN THE EPIDIDYMIS.
PTH: AN N-TERMINAL SER/THR-RICH REGION MAY PROVIDE POSSIBLE SITES
FOR O-GLYCOSYLATION. THERE ARE POTENTIAL PHOSPHORYLATION SITES IN
THE C-TERMINUS, THE PHOSPHORYLATION STATES OF WHICH REGULATE THE
                                                                                                                                                                                                                                                                                                                                                                                                 412
                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                488
                                                                                                                                                                                                                                                                                                                                                                                                                                  548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182
                                                                                                                                                                                                                                 373
                                                                                                                                                                                                                                                                                                 428
                                                                                                                                                                                                                                                                                                                                299 RFKSED-APKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMG 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NRTSLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKN 472
                                                                                               199 RPTAAFISQQLQSLESKLTSVSFLGDTLSFEEDRVNATVWKLPPTAGLEDLHIHSQKEEE 258
                                                                --DEDKP 127
28 PRNTCL - - GSNNMYDIFNLNDKALCFTKCRQSGSDSCNVENLQRYWLNYEAHLMKEGLTQ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS. EMBL; X81892; CAA57479.1; -.
                                                                                                                                                     128 PDRVR-----LPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNRLV
                                                                                                                                                                                                GLSVGQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFW--DVTKGTTGDWSSEGCSTEVRPE
                                                                                                                                                                                                                     241 GTVCCCDHLTFFALLL--RPTLDQSTVHILTRISQAGCGVSMIFLAFTIILYAFLRLSRE
                                                                                                                                                                                                                                                                                                                                                                                                  LEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMV--IGTGSANSYG---LYTIRDRE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RVTYPSMCWIRDSLVS---YVTNLGLFSLVFLFNLAMLATMVVQILRL-----RPHSQN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   473 RKKVLTLLGLSSLVGVTWGLAIFT----PLGLSTVYIFALFNSLQGVFICCWFTLLYLPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                               146 PONTSLPGAPSFIFSFHNAPHKV----SHNASVDMCDLKKELQQLSRYLQHPQK--AAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUL-1997 (TrEMBLrel. 04, Last sequence update) 01-JUN-2001 (TrEMBLrel. 17, Last annotation update) G-PROTEIN-COUPLED RECEPTOR HE6 PRECURSOR.
                                                                 86 KVNTPFLKALVQNLSTN-TAEDFY---FSLEPSQVPRQVMK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT; 1014 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel. 04, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-EPIDIDYMIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUL-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   529 Q 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                000406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                099
                                                                                                                                                                                                                                                                                                                                                                                                                                  489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   549
                                                                                                                                                                                                                                                                                                                                                                429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
000406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                셤
                                                                ò
                                                                                           qq
                                                                                                                                ά
                                                                                                                                                             g
                                                                                                                                                                                              ò
                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              566 RCVFWDLGRNGGRGGWSDNGCSVKDRRLNETICTCSHLTSFGVLLDLSRTSVLPAQMMAL 625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NLSTNTAED---FYFSLEPSQVPRQVMKDEDKPPDRVRLPKSLFRSLPGNRSVVRLAVTI 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214 TCVFWDVTK-GTTGDWSSEGCST-EVRPEGTVCCCDHLTFFALLL---RPTLDQSTVHIL 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
MIM; 602657; ...
InterPro: IPR000832; GPCR_secretin.
InterPro: IPR000203; PRD_cys_rich.
Pfam; PF00002; 7tm_2; 1.
Pfam; PF01825; GPS; 1.
Pfam; PF01825; GPS; 1.
PROSTIE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
G-protein coupled receptor; Transmembrane; Receptor; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      155 LDIGPGTLFKGPRLGLGDGSGVLNNRLVGLSVGQMHVTKLAEPLEIVFSHQRPPPN-MTL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ( POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ( POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL)
(POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1014;
                                                                                                                                                                         HE6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                       G-PROTEIN-COUPLED RECEPTOR EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PHOSPHORYLATION (BY CAPK).
PHOSPHORYLATION (BY CAPK).
PHOSPHORYLATION (BY PKC).
PHOSPHORYLATION (BY PKC).
PHOSPHORYLATION (BY PKC).
PHOSPHORYLATION (BY CAPK).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAPK).
                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL)
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                               4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAPK)
                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                     7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                1 (POTENTIAL)
CYTOPLASMIC (POTENTIAL)
2 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5C448A11272A5A72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 21.2%; Score 610.5; DB 4; Best Local Similarity 34:5%; Pred. No. 1.5e-44; Matches 153; Conservative 77; Mismatches 174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GLCNAC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                  6 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ψ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               111236
                                                                                                                                                                       1014
624
645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         978
1003
1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               825
916
958
                                                                                                                                            Phosphorylation; Signa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     453
458
458
525
539
544
548
548
594
1014 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
SEQUENCE
                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                             DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOD_RES
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOD_RES
MOD_RES
MOD_RES
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                  PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                     RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CARBOHYD
                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            510
   NODDRA WAY THE PET THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              q
```

m

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human)
                                                                                                                                                                                                              534 SSSTARL 540
                                                                                                                                                                                                                             :|:|||
669 NSDSARL 675
                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                   Q96HB4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       365
            307
                                                                                                                                                                                                                                                                           RESULT
Q96HB4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δλ
                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δŻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   οy
                                  g
                                                            ò
                                                                                 QQ
                                                                                                             ò
                                                                                                                                  qq
                                                                                                                                                            ò
                                                                                                                                                                                                            δy
                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.

MEDILINE-99198960; PubMed-10100861;

A Zendman A.J.W., Cornelissen I.M.H.A., Weidle U.H., Ruiter D.J.,
A Van Muijen G.M.P.;

"MYXNI, a novel human BCF-TM7 like protein, detected with mRNA

"TMXXNI, a novel human BCF-TM7 like protein, detected with different

T Differential Display using human melanoma cell lines with different

T Reastactic potential.";

EEBS Lett. 446:292-298(1999).

R BMBL; AJ011001; CAB37294.1;

R InterPro; IPR000832; GPCR_secretin.

InterPro; IPR000832; GPCR_secretin.

R InterPro; IPR002032; APCR_secretin.

R Pfam; PF000002; 77m_2; 1.

R Pfam; PF000025; GPS; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               191 VIKLAEPLEIVFSHQRPPNMTLTCVFW--DVTKGTTGDWSSEGCSTEVRPEGTVCCCDH 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNRLVGLSVGQMH 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  249 LTFFALLLRPTLDQSTV--HILTRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAP 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267 VLLPRTLFQRTKGRRGEAEKRLLLVDFSSQALFQDK----NSSHVLGEKVLGIVVQNTK 321
TRISQAGCGVSMIFLAFTIILYAFLRLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVG 328
                                                SGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWG 388
                                                                                                 LPALMV--IGTGSANSYGLYTIRDRENRTSLELCWFREGTTMYALYITVHGYFLITFLFG 446
                                                                                                                                                447 MVVLALVVWKIFTLSRATAVKERGKNRKKVL----TLLGLSSLVGVTWGLAIFT--PLGL 500
              VANLTEPVVLTFQHQLQPKNVTLQCVFWVEDPTLSSPGHWSSAGCETVRRETQTSCFCNH
                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (Human).
Bukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Manmalia: Eutheria; Primates; Catarphini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21.0%; Score 603.5; DB 4; Length 687; 34.9%; Pred. No. 3.6e-44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Pred. No. 3.6e-44;
66; Mismatches 177; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B3F0EE75B0CD5CF1 CRC64;
                                                                                                                                                                                                                                                                                                                           Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                       687 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS; PRO0249; GPCRSECRETIN.
SMART; SMORTS GPS; 1.
PRO0415; AMP_BINDINS; UNKNOWN_1.
PROSITE; PSS0261; G_PROTEIN_RECEP_F2_4; 1.
                                                                                                                                                                                                                                                                                                                Created)
                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                              ::|:||:||:||:|| || ::: 
856 TFMYLFAIFNTLQGFFIFIFYCV 878
                                                                                                                                                                                                  STVYIFALFNSLQGVFICCWFTI 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          77150 MW;
                                                                                                                                                                                                                                                                                                            01-MAY-1999 (TrEMBLrel. 10, 01-MAY-1999 (TrEMBLrel. 10, 01-DEC-2001 (TrEMBLrel. 19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 34.99
Matches 149; Conservative
                                                                                                                                                                                                                                                                                                                                                   TM7XN1 PROTEIN PRECURSOR.
                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25
687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        687 AA;
                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                     996560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131
269
                                                329
                                                                                                                                                                                                 501
                                                                                                                                                                                                                                                                         RESULT
                                                                                                                                                                        g
                                                                                                                                                                                                                        q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                 ò
                                                                                                à
                                                                                                                                                ò
```

```
10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131 VRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNRLVGLSVGQMH 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191 VIKLAEPLEIVFSHQRPPPNMTLICVFW--DVIKGTIGDWSSEGCSTEVRPEGTVCCCDH 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    122 VANLTEPVVLTFQHQLQPKNVTLQCVFWVEDPTLSSPGHWSSAGCETVRRETQTSCFCNH 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLAVRVFNTYFGHYFLKLSLVGWGLPALMV--IGTGSANSYG---LYTIRDRENRTSLEL 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CWFREGITMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTL 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LGLSSLVGVTWGLAIFT----PLGLSTVYIFALFNSLQGVFICCWFTILYLPSQS----T 531
                                                                                                                                                                                                                                         305 APKIHVALGGSLFLINLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLY 364
                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          249 LTFFALLERPTLDQSTV--HILTRISQAGCGVSMIFLAFTIILYAFLR--LSRERFKSED 304
                                                                                                                                    498 VVEVFGTYVPGYLLKLSAMGWGFPIFLVTLVALVDVDNYGPIILAVHRTPEGVIYPSMCW
KIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLYLL
                                                                                                                                                                                                          422 FREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTLLG
                                                                                                                                                                                                                                                                                                                   482 LSSLVGVTWGLAIFT----PLGLSTVYIFALFNSLQGVFICCWFTILYLPSQS----TTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi; Homo.
                                                                                                     367 AVRVFNTYFGHYFLKLSLVGWGLPALMV--IGTGSANSYG---LYTIRDRENRTSLELCW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 693;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20.7%; Score 596.5; DB 4; Length 6 34.7%; Pred. No. 1.5e-43; ive 66; Mismatches 181; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SECUENCE FROM N.A.
TISSIE-PLACENTA, AND CHORIOCARCINOMA;
StrausBerg R.;
Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BC008770; AAH08770.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              693 AA; 77746 MW; 5C9FA8194D1B5C50 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, E
Mammalia, Eutheria, Primates, Catarrhini, Hominidae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q96HB4;
01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
G PROTEIN-COUPLED RECEPTOR 56.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         693 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 149; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
```

```
Homo sapiens (Human)
         532 TVSSSTARL 540
                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                   NCBI_TaxID=9606;
                            673 KSNSDCARL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
Q9Y3K0
ID Q9
AC Q9
DT 01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ga
                                                                                               원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
          δŏ
                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                      DEMOLINE-99168899; PubMed=10049584;
Liu M., Parker R.M., Darby K., Eyre H.J., Copeland N.G., Crawford J.,
Gilbert D.J., Sutherland G.R., Jenkins N.A., Herzog H.;
"GPR56, a novel secretin-like human G-protein-coupled receptor gene.";
Genomics 55:296-305(1999).
EMBL; AF106888; AAD30545:1; -.
InterPro; IPR000832; GPCR_secretin.
InterPro; IPR000832; GPCR_secretin.
FinterPro; IPR00023; TML2; 1.
Pfam; PF00002; 7tm_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKNRKKVLTL 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   305 APKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWMGLEAFHLY 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    322 VANLTEPVVLTFQHQLQPKNVTLQCVFWVEDPTLSSPGHWSSAGCETVRRETQTSCFCNH 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    131 VRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNRLVGLSVGQMH 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LTFFALLLRPTLDQSTV--HILTRISQAGCGVSMIFLAFTIILYAFLR--LSRERFKSED 304
480 LGLSSLVGVTWGLAIFT----PLGLSTVYIFALFNSLQGVFICCWFTILYLPSOS---T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                191 VIKLAEPLEIVFSHQRPPPNMTLTCVFW--DVTKGTTGDWSSEGCSTEVRPEGTVCCCDH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365 LLAVRVFNTYFGHYFLKLSLVGWGLPALMV--IGTGSANSYG---LYTIRDRENRTSLEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               382 LIYFAVLMVSSVEVDAVHKHYLSLLSYVGCVVSALACLVTIAAYLCSRVPLPCRRKPRDY
                                                                                                                                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4; Length 693;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        77753 MW; F71C8E62666A5141 CRC64;
                                                                                                                       01-NOV-1999 (TrEMBLrel. 12, Created)
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
G-PROFEIN-COUPLED RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             182;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20.7%; Score 594.5; DB 4 34.7%; Pred. No. 2.3e-43; tive 65; Mismatches 182
                                                                                                              Ā
                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00249; GPCRSECRETIN.
SMART; SM00303; GPS; 1.
PR0STIE; PS00455; AMP_BINDING; UNKNOWN_1.
PR0SITE; PS02615; G_PR0TEIN_RECEP_F2_4; 1.
                                                                                                             693
                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 34.7
Matches 149; Conservative
                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                          693 AA;
                                 532 TVSSSTARL 540
                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                              09Y653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
            613
                                                                                         RESULT
09Y653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                 ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
            a
                                   ò
```

```
SLELCWFREGTIMYALYIITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKN--- 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127 PPDRVRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNRLVGLSV 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          298 ERFKSEDAP-KIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWM 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMV-IGTGSANSYGLYTIRDRENRT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65
                                                                                                                                                                                                                                                                                                                                                                         TISSUE-PLACENTA:

ISOGAI T., Ota T., Hayashi K., Sugiyama T., Otsuki T., Suzuki Y.,

Nishikawa T., Nagai K., Sugano S., Shiratori A., Sudo H.,

Nagatsuma M., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M.

Takahashi M., Chiba Y., Ishida S., Murakawa K., Ono Y., Takiguchi S.

Takahashi M., Chiba Y., Ishida S., Murakawa K., Ono Y., Takiguchi S.

Yamanoto J., Wakamatsu A., Nakamura Y., Nagahari K., Masuho Y.,

Ninomiya K., Iwayanagi T.;

"NEDO human cDNA sequencing project.";

"NEDO human cDNA sequencing project.";

"Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.

EMBL; AR027843: BAB55460.1; -

SEQUENCE 512 AA, 57870 MM; BB4EC50BF3FCDDBE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10 PLASVILPPNLLENLSPEDSVLVRRAQFTFFNKTGLFO----DVGPQRKTLVSYVMACSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           187 GQMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVTKGTT-GDWSSEGCSTEVRPEG--TV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              244 CCCDHLTFFALLL-----RPTLDQSTVHILTRISQAGCGVSMIFLAFTIILY-AFLRLSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----RKKVL-----TLLGLSSLVGVTWGLAIFT--PLGLSTVYIFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SNRTLREEVLRNLRSVVSLTFLLGMTWGPAFFAWGPLNIPFMYLFSIFNSLQGLFI 401
                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49;
                                             01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
CDNA FLJ14937 FIS, CLONE PLACE1010211, WEAKLY SIMILAR TO CELL SURFACE GLYCOPROTEIN EMRI PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 512;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19.3%; Score 555.5; DB 4;
llarity 33.7%; Pred. No. 3.9e-40;
Conservative 66; Mismatches 161;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ä.
Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09Y3K0 PRELIMINARY; PRT;
.Q9Y3K0;
01-NOV-1999 (TrEMBLrel. 12, Created)
   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 140; Conservat
```

```
TISSUE=BRAIN;
MEDLINE=99087487; PubMed=9872452;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          : |:||||||| : : : | | 205 VIMAYLFTIFNSLQGMFIFIFHCVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
ses 137; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  097819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
097819
ID 09
AC 09
DT 01
DT 01
DE LA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ōγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δý
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δŻ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | : | :|:| | : | | GNITIQNLKDPVQIKIKHTRTQEVHHPICAFWDLNKNKSFGGWNTSGCVAHRDSDASETV 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   298 ERFKSEDAP-KIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFTWM 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----DYPSKILMNLSTALLFINLLFLLDGWITSFNVDGLCIAVAVLLHFFLLATFTWM 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GLEAFHLYLLAVRVFNTYFGHYFLKLSLVGWGLPALMV~IGTGSANSYGLYTIRDRENRT 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416 SLELCWFREGTTMYALYITVHGYFLITFLFGMVVLALVVWKIFTLSRATAVKERGKN--- 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    127 PPDRVRLPKSLFRSLPGNRSVVRLAVTILDIGPGTLFKGPRLGLGDGSGVLNNRLVGLSV 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCDHLTFFALLL ---- RPTLDQSTVHILTRISQAGCGVSMIFLAFTIILY - AFLRLSR 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10 PLASVILPPNILENLSPEDSVLVRRAQFTFFNKTGLFQ----DVGPQRKTLVSYVMACSI 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GOMHVTKLAEPLEIVFSHQRPPPNMTLTCVFWDVTKGTT-GDWSSEGCSTEVRPEG--TV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         473 -----RKKVL----TLLGLSSLVGVTWGLAIFT--PLGLSTVYIFALFNSLQGVFI 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49;
01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
DJ287G14.2 (PUTATIVE NOVEL SEVEN TRANSMEMBRANE DOMAIN PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19.3%; Score 555.5; DB 4; Length 541; 33.7%; Pred. No. 4.2e-40; ive 66; Mismatches 161; Indels 49
                                                                                                                        Eukaryoja; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
NCBI_TaxID-9606;
                                                                                                                                                                                                                             Machine And Androna Machine And Androna Machine And Androna Machine And Androna Machine Machin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0672C54BEEC7E91D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-WAY-1999 (TrEMBLrel. 10, Created)
01-WAY-1999 (TrEMBLrel. 10, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 AA; 61048 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KIAA0768 PROTEIN (FRAGMENT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 33.78
Matches 140; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                      701822,
PR00249; GPCAC
                                                                                                          Homo sapiens (Human)
                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                             SM00303;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KIAA0768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  094867;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          094867
                                                                                                                                                                                                                                                                                                                                                                                                             SMART;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      094867
    qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          рp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q
```

```
25;
126 KFPENMGHG-----STIQLSANTLKQ-NGRNGEIRVAFVLYNNLGPYLSTENASMKLGTE 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 | 1::|| | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMIFLAFTIILYAFERLSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAAC 338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  339 WARGAVFHYFLLCAFTWMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIG 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     410 SAAVDYRSYG-----TDKVCWLRLDT-----YFIWSFIGPATLIIMLN 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     447 MVVLALVVWKIFTLSRATAV - KERG - KNRKK - VLTLLGLSSLVGVTW - GLAIFTPLG 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      115 QVPRQVMKDEDKPPDRVRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-- 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      172 ----DGSGVLNNRLVGLSVGOMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SLVCLLICIFTFCFF----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIAC 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59 SDSCNVENLQRYWLNYEAHLMKEGLTQ----KVNTPFLKALVQNLSTNTAEDFYFSLEPS 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180 ALSTHHSVIVNSPVITAAINKEFSNKVYLADPVVFTVKHIKQSEBNFNPNCSFWSYSKRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -TGDWSSEGCS-TEVRPEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  397 IGSAN--SYGLYTIRDRENRISLELCWFREGTIMYALYITVHGYFLITF-----LFG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                86;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 872;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13.4%; Score 387; DB 4; Length 87 Larity 27.1%; Pred. No. 4.2e-25; Conservative 84; Mismatches 198; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              097819;
01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
LATROPHILIN 3 SPLICE VARIANT ABAG.
Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           500 LSTVYIFALFNSLQGVFICCWFTIL 524
```

Ą

```
RX MEDLINE-99148428; FUDRMOGIOUS-961;
RY MATSUSHITA H., Lelianova V.G., UShkaryov Y.A.;
RY MATSUSHITA H., Lelianova V.G., UShkaryov Y.A.;
RY With differential tissue distribution.";
RY With differential tissue distribution.";
RY MATH AFILIOR?; AADO5323.1:
BR MED. AFILIOR?; AADO5323.1:
BR MED. AFILIOR?; AADO5323.1:
BR MICEPPO: IPR000832; GGL_ectin.
BR InterPro: IPR001879; hormm_receptor.
BR InterPro: IPR001879; hormm_receptor.
BR InterPro: IPR001879; hormm_receptor.
BR InterPro: IPR001873; Lacrophilin.
BR Pfam; PP02140; Gal_Lectin, 1.
BR Pfam; PP02191; OLF: 1.
BR PFAM: SW00108; GPS: 1.
BR SMART; SW00108; GPS: 1.
BR PROSITE; PS50227; G_PROTEIN RECEP_F2_3; 1.
BR PROSITE; PS50221; G_PROTEIN_RECEP_F2_4; 1.
BR PROSITE; PS50228; SUEL_BECTIN, 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLYGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 77 HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | :|:| : :|| : || : :|| : :|| : :|| : :|| : :|| : :|| : :|| : ::|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     784 AAINKEFSNKVYLADPVVFTVKHIKOSEENFNPNCSFWSYSKRTMTGYWSTOGCRLLTTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                      Bos taurus (Bovine).
Eukaryota: (Bovine).
Mammalia: Euthazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia: Euthazoa; Chordata; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR
                                                                                                                                                                                                                                                                                                                               (TrEMBLrel. 10, Last sequence update) (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13.3%; Score 383.5; DB 6;
ilarity 27.6%; Pred. No. 1.4e-24;
Conservative 77; Mismatches 182;
                                                                                                                                                                                                    PRT; 1274
                                                                                                                                                                                                                                                                                            (TrEMBLrel. 10, Created)
                                                                                                                                                                                                                                                                                                                                                                      01-DEC-2001 (TremBirel. 19, Last an LATROPHILIN 3 SPLICE VARIANT ABAH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE=99148828; PubMed=10025961;
                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 135; Conserv
1109 FIFIFHCVL 1117
                                                                                                                                                                                                                                                                                            01-MAY-1999
                                                                                                                                                                                                                                                                                                                                        01-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  355
                                                                                                                          RESULT
097820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                         A CONTRACTOR OF THE PROPERTY O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25;
                                                                                                                                                                                                                                                                               Matsushita H., Lelianova V.G., Ushkaryov Y.A.;
Matsushita H., Lelianova V.G., Ushkaryov Y.A.;
"The latrophilin family: multiply spliced G protein-coupled receptors
"The latrophilin family: multiply spliced G protein-coupled receptors
"The latrophilin family: multiply spliced G protein-coupled receptors
"The latrophilin";
"The latrophilin interPro: IPR000122; Gal_lectin.";
"InterPro: IPR000123; Gal_lectin."
"InterPro: IPR0001334; Latrophilin."
"InterPro: IPR0001314; Latrophilin."
"InterPro: IPR000131; Offac_like."
"InterPro: IPR000131; PRD_cys_rich."
"InterPro: IPR000131; PRD_cys_rich."
"InterPro: IPR00131; PRD_cys_rich."
"InterPro: IP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1008 ----TDKVCWLRLDT-----YFIWSFIGPATLIIMLNVIFLGIALYKMF---H 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WMFLEGVQLYIMLVEVFESEHSRRKYFY---LVGYGMPALIVAVSAAVDYRSYG----- 1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RENRTSLELCWFREGTTMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463 ATAV - - KERG - - KNRKK - VLTLLGLSSLVGVTW - - GLAIFTPLGLSTVYIFALFNSLQGV 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         77 HIMKEGLIQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               :: : | ||:|: | | ||: | 784 AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTGCRLLTTN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLICVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia, Pecora, Bovoidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13.3%; Score 383.5; DB 6; Length 1231; 27.6%; Pred. No. 1.3e-24; Live 77; Mismatches 182; Indels 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
PROSITE: PS50228; SUEL_LECTIN; 1.
SEQUENCE 1331 AA, 138200 WW; 1258A8A05D64325D CRC64;
                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE~99148828; Pubmed=10025961;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HormR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 13.3
Best Local Similarity 27.6
Matches 135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMART; SM00008; HOFFR;
SMART; SM00284; OLF; 1
                                                Mammalia; Eutheria; Co
Bovidae; Bovinae; Bos
NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        å
```

25;

Length 1274; Indels

```
MEDLINE=991408 1. MEDIANE PubMed=10025961; MEDLINE=991408 28; PubMed=10025961; Matsushita H., Lelianova V.G., Ushkaryov Y.A.; Matsushita H., Lelianova V.G., Ushkaryov Y.A.; The atrophilin family: multiply spliced G protein-coupled receptors with differential tissue distribution."; FEBS Lett. 443:348-352(1999). EMBL: AF111093; AANO3229.1; InterPro; IPR000922; Gal_ectin.
                                                                                                                                                                                                                                                                                                                                                      912 KTHTTCSCNHLINFAVLMAHYEVKHSDAVHDLILDVITWVGILLSLVCLLICIFTFCFF- 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV 515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              411 RENRISLELCWFREGITMYALYITVHGYFLITF -----LFGMVVLALVVWKIFTLSR 462
852 AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTQGCRLLTTN 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos
                                                                                                 239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR
                                                                                                                                                                                                                                                                                              295 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 1342;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51FBC79F37FF5B4B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
LATROPHILIN 3 SPLICE VARIANT BBAH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 383.5; DB 6;
Pred. No. 1.5e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1342 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
PROSITE; PS50228; SUBL_LECTIN; 1.
SEQUENCE 1342 AA; 149658 MW; 51FBC79F3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR00334; Introphilin.
InterPro; IPR00312; Olfac_like.
InterPro; IPR001212; Olfac_like.
Fam; PF00102; Ttm_2; 1.
Pfam; PF02140; Gal_Lectin; 1.
Pfam; PF02182; GPS; 1.
Pfam; PF02793; HRM; 1.
Pfam; PF02191; OLF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001879; hormn_receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          '02191; OLF; 1.
PR00249; GPCRSECRETIN.
PD005612; Gal_lectin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13.3%; 27.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00303; GPS; 1.
SMART; SM00008; HormR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SMART; SM00284; OLF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1177 FIFIFHCVL 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProDom;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              097826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                097826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOOR DEAR THE TENT OF THE TENT
                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                          Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δŽ
                                                                                           δy
                                                                                                                                                                                                                                                                                              Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25;
                                                                                                                                                                                             ----TDKVCWLRLDT------YFIWSFIGPATLIIMLNVIFLGIALYKMF---H 1048
                                                                                                                                                                                                                                                                                                                                                      957 WMFLEGVQLYIMLVEVFESEHSRRKYFY---LVGYGMPALIVAVSAAVDYRSYG----- 1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

MEDLINE=99148828; Pubmed=10025961;

Matsushita H., Lelianova V.G., Ushkaryov Y.A.;

Matsushita H., Lelianova V.G., Ushkaryov Y.A.;

"The latrophilin family: multiply spliced G protein-coupled receptors

"The latrophilin family: multiply spliced G protein-coupled receptors

"The latrophilin family: multiply spliced G protein-coupled receptors

"The Secondary of Proceedings of Secondary 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              751 NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKQN----- 803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VRLPKSLFRSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG------DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | :|:| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| : :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :|| :||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-1999 (TrEMBLrel. 10, Created)
01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
01-OCT-2001 (TrEMBLrel. 18, Last annotation update)
01-OCT-2001 (TrEMBLrel. 18, Last annotation update)
LATROPHILIN 3 SPLICE VARIANT BBAG.
Bos taurus (Bovine).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                 411 RENRTSLELCWFREGTTMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR
                                                                                                                                                                                                                                                                                              463 ATAV -- KERG -- KNRKK-VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVYIFALFNSLQGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13.3%; Score 383.5; DB 6; Length ilarity 27.6%; Pred. No. 1.4e-24; Conservative 77; Mismatches 182; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9D83D9258D7FA821 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT; 1299 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1. PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1. PS50218; SUEL_LECTIN; 1. SEQUENCE 1299 AA; 141109 WW; 9D83D92581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Interpro; IPR003334; Latrophilin.
InterPro; IPR003132; Olfac_like.
InterPro; IPR000203; PKD_cys_rich.
Pfam; PF00002; 7tm_2; 1.
Pfam; PF02140; Gal_Lectin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF01825; GPS; 1.
Pfam; PF02793; HRW; 1.
Pfam; PF02194; Latrophilin; 1.
Pfam; PF02191; OLF; 1.
PRINTS; PR00249; GPCRSECRETIN.
PRODOM; PD005612; Gal_lectin; 1.
SMART; SM00303; GPS; 1.
SMART; SM00088; HORTR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 135; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1109 FIFIFHCVL 1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 11
097825
AC 097825
AC 097825
DT 01-MAX DT 01-MAX DT 01-OCT DE LATROP DE LATROP CC BUKALY, THE 1 LATROP DE RAMAT; DE SAMAT; DE SAMAT; DE SAMAT; DE RAMAT; DE 
                                                                                                                                                                                             1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                          Op
                                                                                           οχ
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŏ
```

ω

25;

Gaps

```
O88927 PRELIMINARY; PRT; 1527 AA.
O88924; O88928; O88926; O88925;
O1-JAN-1998 (TrEMBLrel. 05, Created)
O1-JAN-1998 (TrEMBLrel. 05, Last sequence update)
O1-GT-2001 (TrEMBLrel. 18, Last annotation update)
O1-CCT-2001 (TrEMBLrel. 18, Last annotation update)
O1-CCT-2001 (TrEMBLrel. 18, Last annotation update)
O1-CT-2001 (TrEMBLrel. 18, Last annotation update)
O1-CT-2001 (TrEMBLrel. 18, Last annotation update)
O1-CT-2001 (TrEMBLrel. 18, Lest annotation update)
O1-CT-2001 (TrEMBLrel. 18, Leptar)
O1-CT-2001 (TrEMBLrel. 18, CLPH3).
Enderyota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-99047651; PubMed-9830014;
Sugita S., Ichtchenko K., Khvotchev M., Suedhof T.C.;
Sugita S., Ichtchenko K., Khvotchev M., Suedhof T.C.;
"alpha-Latrotoxin receptor CIRL/Latrophilin 1 (CL1) defines an unusual family of ubiquitous G-protein-linked receptors. G-protein coupling not required for triagering exocytosis.";
J. Biol. Chem. 273:32715-32724(1998).
-:- FUNCTION: PERFORMS A GENERAL AND UBIQUITOUS FUNCTION AS G-PROTEIN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1008 -----TDKVCWLRLDT------YFIWSFIGPATLIIMLNVIFLGIALYKMF---+ 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77 HIMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 41,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV 515
                                                                                                                                                                                                                                                                                                                                                                                                         784 AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRTMTGYWSTQGCRLLTTN 843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    411 RENRTSLELCWFREGTTMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR 462
                                                                                                                                                                                                                                                                                                                                                                             131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG------DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                             184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PEGIVCCCDHLIFFALLLR--PILDQSTVH--ILTRISQAGCGVSMIFLAFIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                                                                                                                                                                                      NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKQN----
                                                                                                                                                                                                              Length 1503;
                                                                                                                                                                                                                                                         Indels
                                                                                                                                                  F4C8345D7F988218 CRC64;
                                                                                                                                                                                                                                                       77; Mismatches 182;
                                                                                                                                                                                                                ;
9
                                                                                                                                                                                                              Query Match 13.3%; Score 383.5; DB 6
Best Local Similarity 27.6%; Pred. No. 1.7e-24;
Matches 135; Conservative 77; Mismatches 182
                                                                               PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
PROSITE; PS50228; SUEL_LECTIN; 1.
SEQUENCE 1503 AA; 167991 MW; F4C8345D7
        ProDom; PD005612; Gal_lectin; 1.
                           SMART; SM00303; GPS; 1.
SMART; SM00008; HOrmR; ·1.
SMART; SM00284; OLF; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1109 FIFIFHCVL 1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                    683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            295
        g
                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDINE-9148838; Pubmed=10025961;
MATSUSHE-9148838; Pubmed=10025961;
MATSUSHITE-9148838; Pubmed=10025961;
MATSUSHITE-9148838; Pubmed=10025961;
MATCHEL LICOPALILIA family: multiply spliced G protein-coupled receptors
MILL AFILLOBALILIA family: multiply spliced G protein-coupled receptors
LL FEBS Lett. 443:348-352(1999).
REBBL; AFILLOBOS21: Gal_lectin.
RICEPPO: IPRO00922; Gal_lectin.
RICEPPO: IPRO009334; Latrophilin.
RICEPPO: IPRO03334; Latrophilin.
RICEPPO: IPRO03334; Latrophilin.
RICEPPO: IPRO03339; PRD_Cys_rich.
RICEPPO: IPRO000203; PRD_Cys_rich.
                                                                                                                                                                                                                                                                                                                                                                                                 971 ----RGLQSDRNTIHKNLCISLFVAELLFL--IGINRTDQPIACAVFAALLHFFFLAAFT 1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----TDKVCWLRLDT-----YFIWSFIGPATLIIMLNVIFLGIALYKMF---H 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             851
                                                                                                                                                                                                                                                                                                                                                                                                                                                      355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        411 RENRISLELCWFREGTTMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV 515
                                           77 HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130
                                                                                                                      131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                         PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                       LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
        Gaps
                                                                                                                                                    ::: | ||:|: | ||:|| 852 AAINKEFSNKVYLADPVVFTVKHIKQSEENFUPNCSFWSYSKRTMTGYWSTQGCRLLTIN
                                                                           751 NLLKTDIVRE-NTDNIQLEVARLSTEGNLEDLKFPENTGHGSTIQLSANTLKON-----
                                                                                                                                                                                                        184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                912 KTHTTCSCNHLINFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF-
      95;
    Mismatches 182; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1503 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                097818.
01-MAY-1999 (TrEMBLrel. 10, Create 01-MAY-1999 (TrEMBLrel. 10, Last s 01-CT-2001 (TrEMBLrel. 18, Last a LATROPHILIN 3 SPLICE VARIANT ABAF. Bos taurus (Bovine).
  77;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF02354; Latrophilin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRINTS; PR00249; GPCRSECRETIN.
135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF02793; HRM; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1177 FIFIFHCVL 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID-9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF01825;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               097818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       516
  Matches
                                                                                                                                                                 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           097818
                                                                                                                      ò
                                                                                                                                                             g
                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

```
MISSING (IN CL3BB AND CL3AB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1999 (TrEMBLrel. 10, Created 01-MAY-1999 (TrEMBLrel. 10, Last st 01-DEC-2001 (TrEMBLrel. 19, Last at LATROPHILIN 3 SPLICE VARIANT BBAF.
                                                                                                       13.3%;
27.6%;
                                                              1527
AA; 169779
                                                                                                                            Matches 135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
  1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bos taurus (Bovine)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1176 FIFIFHCVL 1184
                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9913;
 VARSPLIC
VARSPLIC
                                                              VARSPLIC
SEQUENCE
                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           097824;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                097824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
                                                                                                                                                                                                               803
                                                                                                                                                                                                                                                                                                                                           970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      097824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
    STITE
                                                                                                                                                                    g
                                                                                                                                                                                          ŏ
                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                             Óγ
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Д
                                                                      TISSUE SPECIFICITY: BRAIN.
PTM: CLEAVED INTO A 120 KDA HYDROPHILIC GLYCOSYLATED EXTRACELLULAR SUBUNIT WHICH CONTAINS AT LEAST PART OF ALPHA-LATROTOXIN-BINDING SITE, AND A 85 KDA MEWBRANE-SPANNING SUBUNIT THAT REMAIN STILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MISSING (IN CL3AA, CL3AB, AND CL3AC).
GLLNNARDTSVMDTLPLNGNHGNSYSIAGGEYLSNC ->
YRETSMGVKLNIAYQIGASEQCQGYKCHGYSTTEW (IN
COUPLED RECEPTORS IN CELLULAR SIGNALING.
SUBUNIT: HETERODIMER OF A 120 AND A 85 KDA SUBUNITS THAT ARE THE
RESULT OF ENDOGENOUS PROTEOLYTIC CLEAVAGE OF THE PRECURSOR.
                                                                                                                                      SIMILARITY: BELONGS TO FAMILY 2 OF G-PROTEIN COUPLED RECEPTORS. SIMILARITY: SOME, TO NEURONAL OLFACTOMEDIN-RELATED ER LOCALIZED
                               SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
ALTERNATIVE PRODUCTS: SIX ISOFORMS; CL3AA, CL3AB, CL3AC, CL3BB, CL3BC, AND CL3BA (SHOWN HERE); ARE PRODUCED BY ALTERNATIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CALCIUM-INDEPENDENT ALPHA-LATROTOXIN
                                                                                                                                                                                                                                                                                                                                                                                                   PROSTIE: PS5027; G_PROTEIN_RECEP_F2_3; 1.
PROSTIE: PS5027; G_PROTEIN_RECEP_F2_4; 1.
PROSTIE: PS50228; SUEL_LECTIN; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Signal; Alternative splicing.
                                                                                                                  BOUND TO EACH OTHER AFTER PROTEOLYTIC CLEAVAGE (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYS-RICH, LECTIN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLEAVAGE (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OLFACTOMEDIN-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CL3BB AND CL3AB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SER/THR-RICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POTENTIAL
                                                                                                                                                                                                                                                    InterPro; IPR001893; horm_receptor.
InterPro; IPR001334; Latrophilin.
InterPro; IPR003134; Olfac_like.
InterPro; IPR002033; PKD_cys_rich.
Pfam; PF00002; 7tm_2; 1.
Pfam; PF01825; GPS; 1.
Pfam; PF021835; GPS; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -RICH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRO-RICH
                                                                                                                                                                                                                                  InterPro; IPR000922; Gal_lectin.
InterPro; IPR000832; GPCR_secretin.
                                                                                                                                                                                                                                                                                                                                         Pfam; PF02354; Latrophilin; 1.
Pfam; PF02191; OLE; 1.
ProDom; PD005612; Gal_lectin; 1.
SMART; SM00303; GPS; 1.
SMART; SM00008; HormR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BAI
                                                                                                                                                                  AF081157; AAC62663.1; -. AF081154; AAC62660.1; -. AF081158; AAC62664.1; -.
                                                                                                                                                                                                   AF081159; AAC62665.1; -. AF081156; AAC62662.1; -. AF081155; AAC62661.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1108
11132
11153
11159
11180
1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             835
933
969
977
998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1006
1027
1048
1069
1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            457
491
556
                                                                                                                                                                                                                                                                                                                                                                                              SMART; SM00284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              049
                                                                                                                             SIMILARITY)
                                                                                                                                                           PROTEINS
                                                               SPLICING
                                                                                                                  TIGHTLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SITE
VARSPLIC
VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                               EMBL;
EMBL;
EMBL;
EMBL;
EMBL;
                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHAIN
```

25; DRGYNHNETALEKKIIKELTSNYIPSYLNNHERSSEGNR -> GTWANHIMSNALLRPHGTNNPYNTLLGEPAVCNNPSIS MYNAQEPYRETSMGVKLNIAYQIGASEQCQGYKCHGYSTTE ----RGLOSDRNTIHKNLCISLFVAELLFL--IGINRTDOPIACAVFAALLHFFFLAAFT 1023 1075 ----TDKVCWLRLDT-----YFIWSFIGPATLIIMLNVIFLGIALYKMF---H 1115 EGLLNNARDTSVMDTLPLNGNHGNSYSIAGGEYLSNCVQII MEDLINE=99148828; PubMed=10025961;
Matsushita H., Lellanova V.G., Ushkaryov Y.A.;
"The latrophilin family: multiply spliced G protein-coupled receptors with differential tissue distribution.";
With differential tissue distribution.";
FEBS Lett. 443:348-352(1999).
EMBL; AFIl1091; AAD05327.1; -.
InterPro, IPR000922; Gal_lectin. 184 LSVGQMHVTK--LAEPLEIVFSH-QRPPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238 239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294 354 355 WMGLEAFHLYLLAVRVFNTYFGH--YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410 77 HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS-----QVPRQVMKDEDKPPDR 130 131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183 Gaps Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea; 911 KTHTTCSCNHLTNFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF-295 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 851 AAINKEFSNKVYLADPVVFTVKHIKQSEENFNPNCSFWSYSKRIMIGYWSTQGCRLLTTN 411 RENRTSLELCWFREGTTMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR 463 ATAV--KERG--KNRKK-VLTLLGLSSLVGVTW--GLAIFTPLGLSTVYIFALFNSLQGV Length 1527; 95; W (IN CL3AC AND CL3BC). MISSING (IN CL3AC AND CL3BC). W; AOF1FFC2D9B50B9F CRC64; ; Score 383.5; DB 11; Length; Pred. No. 1.7e-24; 77; Mismatches 182; Indels Last sequence update)
Last annotation update) PRT; 1571 AA.

```
25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         355 WMGLEAFHLYLLAVRVFNTYFGH-·YFLKLSLVGWGLPALMVIGTGSAN--SYGLYTIRD 410
                                                                                                                                                                                                                                                                                                                                                                                            77 HLMKEGLTQKVNTPFLKALVQNLST-NTAEDFYFSLEPS----QVPRQVMKDEDKPPDR 130
                                                                                                                                                                                                                                                                                                                                                                                                               131 VRLPKSLFRSLPGNRSVVRLAVTIL-DIGPGTLFKGPRLGLG-----DGSGVLNNRLVG 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           184 LSVGQMHVTK--LAEPLEIVFSH-QRPPNMTLTCVFWDVTKGT-TGDWSSEGCS-TEVR 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     239 PEGTVCCCDHLTFFALLLR--PTLDQSTVH--ILTRISQAGCGVSMIFLAFTIILYAFLR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                912 KTHTTCSCNHLTNFAVLMAHVEVKHSDAVHDLLLDVITWVGILLSLVCLLICIFTFCFF- 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       295 LSRERFKSEDAPKIHVALGGSLFLLNLAFLVNVGSGSKGSDAACWARGAVFHYFLLCAFT 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                411 RENRISLELCWFREGITMYALYITVHGYFLITF-----LFGMVVLALVVWKIFTLSR 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          463 ATAV -- KERG -- KNRKK - VLTLLGLSSLVGVTW -- GLAIFTPLGLSTVYIFALFNSLQGV 515
                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                     95;
                                                                                                                                                                                                                                                                                                                                 Query Match 13.3%; Score 383.5; DB 6; Length 1571; Best Local Similarity 27.6%; Pred. No. 1.8e-24; Matches 135; Conservative 77; Mismatches 182; Indels 95;
                                                                                                                                                                                                                                        PROSITE; PS50227; G_PROTEIN_RECEP_F2_3; 1.
PROSITE; PS50261; G_PROTEIN_RECEP_F2_4; 1.
PROSITE; PS50228; SUEL_LECTIN; 1.
SEQUENCE 1571 AA; 174901 MW; 2185D5ADCB5F8607 CRC64;
            InterPro; IPR001879; hormn_receptor.
InterPro; IPR003334; Latrophilin.
InterPro; IPR003131; Olfac_like.
InterPro; IPR000203; PKD_cys_rich.
Pfam; PF00002; 7fm_2; 1.
Pfam; PF01825; GPS; 1.
Pfam; PF021940; Gal_Lectin; 1.
Pfam; PF02784; Latrophilin; 1.
Pfam; PF02791; OLF; 1.
InterPro; IPR000832; GPCR_secretin
                                                                                                                                                              PRINTS; PRO0249; GPCRSECRETIN.
Prodom; PD005612; Gal_lectin; 1.
SMART; SM00303; GPS; 1.
SMART; SW00008; HORRR; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           || : :|
1177 FIFIFHCVL 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        516 FICCWFTIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      804
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                С
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

Search completed: June 11, 2002, 22:32:13 Job time: 457 sec